

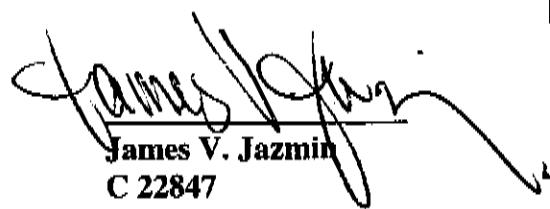
**2004 4<sup>th</sup> QUARTER GROUNDWATER  
MONITORING REPORT**

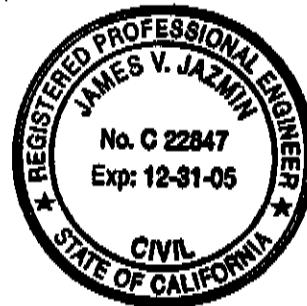
**FOR**

**FORMER ANGELES CHEMICAL COMPANY FACILITY  
8915 SORENSEN AVENUE  
SANTA FE SPRINGS, CALIFORNIA**

**Prepared by:  
Clean Soil, Inc.  
4359 Phelan Road  
Phelan, CA 92371  
(760)-868-8572**

**February 23, 2005**

  
James V. Jazmin  
C 22847



## **TABLE OF CONTENTS**

<b>1.0) INTRODUCTION</b>	<b>1</b>
<b>2.0) SITE DESCRIPTION</b>	<b>1</b>
<b>3.0) PREVIOUS SITE ASSESSMENT WORK</b>	<b>1</b>
<b>4.0) REGIONAL GEOLOGY/HYDROGEOLOGY</b>	<b>3</b>
<b>5.0) SITE GEOLOGY/HYDROGEOLOGY</b>	<b>3</b>
<b>6.0) GROUNDWATER MONITORING PROTOCOL</b>	<b>5</b>
<b>6.1) Well Purging and Measurement of Field Parameters</b>	<b>6</b>
<b>6.2) Well Sampling</b>	<b>7</b>
<b>6.3) Sample Handling</b>	<b>8</b>
<b>6.4) Waste Management</b>	<b>9</b>
<b>7.0) FREE PRODUCT REMOVAL</b>	<b>9</b>
<b>8.0) GROUNDWATER SAMPLE RESULTS</b>	<b>9</b>
<b>9.0) CONCLUSIONS</b>	<b>13</b>
<b>10.0) RECOMMENDATIONS</b>	<b>14</b>

## **FIGURES**

<b>Figure 1</b>	<b>Site Location Map</b>
<b>Figure 2</b>	<b>Well Location Map</b>
<b>Figure 3</b>	<b>First Water Potentiometric Gradient Map</b>
<b>Figure 4</b>	<b>A1 Zone Potentiometric Gradient Map</b>
<b>Figure 5</b>	<b>First Water Groundwater Elevations: Central &amp; Northern Wells</b>
<b>Figure 6</b>	<b>First Water Groundwater Elevations: Southern Wells</b>
<b>Figure 7</b>	<b>Upper A1 Groundwater Elevations</b>
<b>Figure 8</b>	<b>Lower A1 Groundwater Elevations</b>
<b>Figure 9</b>	<b>TPH-g and BTEX Concentrations in First Water</b>
<b>Figure 10</b>	<b>TPH-g and BTEX Concentrations in Upper and Lower A1 Zones</b>
<b>Figure 11</b>	<b>Chlorinated VOCs &amp; 1,4-Dioxane Concentrations in First Water</b>
<b>Figure 12</b>	<b>Chlorinated VOC &amp; 1,4-Dioxane Concentrations in Upper and Lower A1 Zones</b>
<b>Figure 13</b>	<b>Acetone, MEK, and MIBK in First Water</b>
<b>Figure 14</b>	<b>Acetone, MEK, and MIBK in Upper and Lower A1 Zones</b>

## **TABLE OF CONTENTS (cont.)**

### **TABLES**

- |                |   |
|----------------|---|
| <b>Table 1</b> | <b>Well &amp; Screen Elevations and Groundwater Depths &amp; Elevations</b> |
| <b>Table 2</b> | <b>TPH-gas and VOCs from Free Product</b>                                   |
| <b>Table 3</b> | <b>Conductivity, pH and TPH-gas Groundwater Results</b>                     |
| <b>Table 4</b> | <b>Detected VOCs from Groundwater Results</b>                               |
| <b>Table 5</b> | <b>Detected VOCs from Diffusion Bag Groundwater Samples</b>                 |
| <b>Table 6</b> | <b>Biodegradation Indicator Results</b>                                     |

### **APPENDICES**

- |                   |  |
|-------------------|--|
| <b>Appendix A</b> | <b>Field Sampling Logs and LeveLogger Measurements</b> |
| <b>Appendix B</b> | <b>Contaminant Graphs</b>                              |
| <b>Appendix C</b> | <b>Groundwater Laboratory Analysis Results</b>         |

**Former Angeles Chemical Co.  
2004 Fourth Quarter  
Groundwater Monitoring Report  
Page 1**

**1.0) INTRODUCTION**

Clean Soil, Inc. (CSI) was contracted by Greve Financial Services ((310) 753-5770) to perform quarterly groundwater monitoring at the former Angeles Chemical Company (ACC), Inc. facility located at 8915 Sorensen Avenue, Santa Fe Springs, California (See Figure 1, Site Location Map). The quarterly groundwater monitoring was requested by the Department of Toxics Substance Control (DTSC) correspondence dated September 18, 2001. This report presents the results of the 2004 4<sup>th</sup> quarter monitoring episode performed on December 15 and 16 of 2004.

**2.0) SITE DESCRIPTION**

The site is approximately 1.8 acres in size and completely fenced. The site is bound by Sorensen Avenue on the east, Air Liquide Corporation to the north and northwest, Plastall Metals Corporation to the north, and a Southern Pacific Railroad easement and McKesson Chemical Company to the south.

The ACC has operated as a chemical repackaging facility from 1976 to 2000. A total of thirty-four (34) underground storage tanks (USTs) existed beneath the site. Two (2) USTs, one gasoline and one diesel, and sixteen (16) chemical USTs were excavated and removed under the oversight of the Santa Fe Springs Fire Department. All 16 remaining chemical USTs were decommissioned in place and slurry filled.

**3.0) PREVIOUS SITE ASSESSMENT WORK**

In January 1990, SCS Engineers, Inc. (SCS) conducted a site investigation and advanced eight borings from 5' below grade surface (bgs) to 50' bgs. Soil samples collected and analyzed identified benzene, 1,1-Dichloroethane (1,1-DCA), 1,1-Dichloroethene (1,1-DCE), MEK, methyl isobutyl ketone (MIBK), toluene, 1,1,1-Trichloroethane (1,1,1-TCA), Tetrachloroethylene (PCE), and xylenes at detectable concentrations.

In June 1990, SCS performed an additional site investigation at the site by advancing six additional borings advanced from 20.5' bgs to 60' bgs. A monitoring well (MW-1) was also installed. Soil sample analysis identified detectable concentrations of the above mentioned VOCs in addition to acetone and methylene chloride. Dissolved benzene, 1,1-DCA, 1,1-DCE, PCE, Trichloroethylene (TCE), and trans-1,2-dichloroethene were detected in MW-1 above maximum contaminant levels.

Between 1993 and 1994, SCS performed further testing at the site. Soil samples were collected from nine borings. Five borings were converted to groundwater monitoring wells MW-2, MW-3, MW-4, MW-6, and MW-7. The predominant compounds detected in soil and groundwater were acetone, MEK, MIBK, chlorinated VOCs, and BTEX.

**Former Angeles Chemical Co.  
2004 Fourth Quarter  
Groundwater Monitoring Report  
Page 2**

In 1996 and 1999, SCS performed separate soil vapor extraction pilot tests using several treatment technologies on extraction well E-1 screened from 7' bgs and 22' bgs. Laboratory analysis identified maximum soil vapor gas concentrations as 1,1,1-TCA (30,300 ppmV) with detectable concentrations of 1,1-DCE, TCE, methylene chloride, toluene, PCE and xylenes. The radius of influence was measured between 35 and 80 feet.

In November 1997, SCS performed a soil vapor survey at the site. Soil vapor samples were collected at twenty-three locations at 5' bgs. In addition, soil vapor samples were collected at 15' bgs in five of the twelve sampling points. The soil vapor survey identified maximum VOC concentrations near the railroad tracks located on the northern portion of the site.

Blakely Environmental Investigations, Inc. (BEII) performed a soil vapor gas survey at the site from November 27 to December 1, 2000. A total of 36 soil vapor sample points, labeled SV1 through SV36, were selected by BEII and approved by the DTSC for analysis. Two discrete soil vapor samples were collected from each soil vapor sample point, one at 8' bgs and one at 20' bgs. SV1 was an exception since the first soil vapor sample was collected at 10' bgs instead of 8' bgs. Based on the soil vapor sample results, BEII identified relatively low level concentrations of VOCs in the silty clay soils at 8' bgs. However, the concentrations of VOCs are significantly higher in the sandy soils at 20' bgs. Results were submitted to the DTSC by BEII in a Report of Findings dated January 10, 2001 with laboratory reports (BEII Report of Findings dated January 10, 2001).

BEII performed an additional soil gas survey on the ACC site from January 14 to January 17, 2002. The purpose of the soil gas survey was to determine the lateral extent of VOC soil vapors in the vadose zone along the eastern, northern, and southern property line of the site. In addition, BEII performed a SGS on June 13, 2002 on the Air Liquide property to determine the lateral extent of VOC soil vapors in the vadose zone north of the ACC facility. Based on the soil gas survey results, BEII identified relatively low level concentrations of VOCs in the silty clay soils at 5' bgs, 7'bgs, 8' bgs, 10' bgs, and 12' bgs. However, the concentrations of VOCs are significantly higher in the sandy soils at 20' bgs, which are more permeable and conducive to soil vapor migration. Furthermore, VOC soil gas concentrations were higher along the southern property line than along the east and north property line. Results were submitted by BEII to the DTSC in a Report of Findings dated October 15, 2002 with laboratory reports.

BEII advanced two soil borings (BSB-1 and BSB-2) and installed two groundwater monitoring wells (MW-8 and MW-9) on the ACC site from June 5 to June 7, 2002. The purpose of the drilling was to help define the lateral and vertical extent of impacted soil along the eastern ACC property line and to help determine the extent of impacted groundwater. Soil borings BSB-1 and BSB-2 were advanced to 50' bgs and 30' bgs, respectively. Monitoring wells MW-8 and MW-9 were installed to 40.5' bgs and 45.5' bgs, respectively. Soil sample results identified elevated VOC concentrations from

**Former Angeles Chemical Co.  
2004 Fourth Quarter  
Groundwater Monitoring Report  
Page 3**

monitoring well MW-8 at depth between 29' and 40' bgs. Results were submitted by BEII to the DTSC in a Report of Findings dated October 15, 2002 with laboratory reports.

BEII advanced eight soil borings (BSB-3 through BSB-10) and eleven cone penetrometer testing locations (CPT-1 though CPT-11) in August 2002 to help determine the extent of impacted soil and subsurface geology. In November and December of 2002, BEII advanced seven additional borings (BSB-11 through BSB-17), fifteen additional cone penetrometer locations (CPT-12 through CPT-26) and installed twelve additional monitoring wells (MW-10 through MW-21) to help further define the extent of VOC impacted soil/groundwater and the subsurface geology. Monitoring well MW-1 was also abandoned. In late June of 2003, BEII installed five additional monitoring wells (MW-22 through MW-26) to help define the extent of VOC impacted soil and groundwater. Monitoring wells MW-2, MW-3, and MW-7 were abandoned. Laboratory results were submitted by BEII to the DTSC. A Summary Site Characterization Report dated February 2004 was submitted by Shaw Environmental & Infrastructure, Inc. (Shaw) to the DTSC and included interpretations based on the above mentioned borings, CPT locations and monitoring wells. See Figure 2 for Site Layout Map.

#### **4.0) REGIONAL GEOLOGY/HYDROGEOLOGY**

The site is located near the northern boundary of the Santa Fe Springs Plain within the Los Angeles Coastal Plain at an elevation of approximately 150 feet above mean sea level. Surficial sediments consist of fluvial deposits composed of inter-bedded gravel, sand, silt, and clay. Available data from California Water Resources Bulletin No. 104 (June 1961) indicate that the surficial sediments may be Holocene and/or part of the upper Pleistocene Lakewood Formation, which ranges from 40 to 50 feet thick beneath the site. The Lakewood Formation has lateral lithologic changes with discontinuous permeable zones that vary in particle size. Stratified deposits of sand, silty sand, silt, and fine gravel comprising the upper portion of the lower Pleistocene San Pedro Formation underlies the Lakewood Formation.

The site lies within the Central Basin Pressure area, a division of the Central Ground Water Basin, which extends over most of the Coastal Plain. The shallow (perched) groundwater occurs within the Lakewood Formation. The deeper groundwater occurs in the Hollydale aquifer, which is the uppermost regional aquifer in the Pleistocene San Pedro Formation. The major water producing aquifers in the region are the Lynwood aquifer located approximately 200-feet bgs, the Silverado aquifer located at approximately 275-feet bgs, and the Sunnyside aquifer located at approximately 600-feet bgs.

#### **5.0) SITE GEOLOGY/HYDROGEOLOGY**

Based on the borings and CPT pushes, Shaw identified six distinct

**Former Angeles Chemical Co.  
2004 Fourth Quarter  
Groundwater Monitoring Report  
Page 4**

hydrostratigraphic units horizons beneath the ACC site. Uppermost is an "overburden" unit comprising a wide range of materials from fill to silty sands to clayey silts that is designated as "unit A". Next is a well-defined clean sand (sometimes with gravel) horizon designated as "unit B". Following is a fine-grained predominantly silt zone designated as "unit C1" which is underlain by a coarser silty sand zone named "unit D". Next is the finest-grained unit observed, "unit C2" which is predominantly a clayey silt that can be finer (clay) at the top, and coarser (sandy silt) with depth. Finally, "unit E" is a clean coarse sand (similar to unit B) that is considered the top of the regional aquifer system.

A perched water zone, which is currently dry, was identified within unit B. The regional aquifer zone from 50' to 80' bgs (referred as the A1 zone), is identified within unit E. A zone of saturation (referred as the "first water" zone) exists between the A1 and the perched water zone.

For this report, monitoring wells MW-13, MW-14, MW-15, MW-17, MW-20 and MW-21 will be noted as upper A1 zone monitoring wells and MW-23, MW-24 and MW-25 as lower A1 zone monitoring wells. Monitoring wells MW-6, MW-8, MW-9, MW-10, MW-11, MW-12, MW-16, MW-18, MW-19, MW-22, and MW-26 will be noted as the first water zone monitoring wells. Monitoring well MW-4 contained residual water within the casing sump at 26.42' bgs and a depth to bottom of 26.60' bgs. MW-4 will be noted as a first water zone well.

The groundwater gradient flowed historically to the southwest as identified by SCS. In December 2004, the first water was identified at depths between 363.26' bgs to 41.69' bgs beneath the site. The potentiometric groundwater flow direction of the first water zone is S 70°W in the southwestern corner with a hydraulic gradient of 0.0094 ft/ft and N35°E on the eastern side with a hydraulic gradient of 0.044 ft/ft (See Figure 3). Groundwater in the A1 zone was identified at depths between 49.57' bgs to 53.18' bgs beneath the site. The potentiometric groundwater flow in the A1 zone is to S 80°W with a hydraulic gradient of 0.008 ft/ft (See Figure 4). Depths to groundwater and their respective elevations are presented in Table 1. LeveLogger measurement charts are attached in Appendix A.

Hydrographs are included as Figures 5 through 8 in this report. Groundwater elevations of both the first water and A1 zone tend to be higher in June and lower in December, which indicates a seasonal recharge in both hydrologic zones. Groundwater levels have generally been declining since June 2003, due to limited rainfall, which supplies seasonal recharge. The most recent groundwater elevations measured in December 2004 appear to coincide with recent changes with a drop in water elevations in most wells. Wells with an increase in water level were MW-8, MW-10, and MW-19, which are all wells containing free product. The groundwater elevations from the southern first water monitoring wells MW-22 and MW-26 have fallen too low for sampling. The groundwater elevations from the central first water, northern first water

**Former Angeles Chemical Co.  
2004 Fourth Quarter  
Groundwater Monitoring Report  
Page 5**

and the A1 zone monitoring wells have also dropped since the last groundwater monitoring episode.

**6.0) GROUNDWATER MONITORING PROTOCOL**

The purpose of the proposed groundwater monitoring was to provide data regarding the piezometric surface, water quality, and the presence of free product (FP), if any on a quarterly basis to the DTSC. Groundwater monitoring consisted of such activities as water level measurement, well sounding for detection of FP, collection of groundwater samples, field analysis, laboratory analysis, and reporting. The proposed work was performed as follows:

The depth to groundwater was measured in each well using a decontaminated water level indicator capable of measuring to with 1/100th of a foot. Prior to and following collection of measurements from each well, the portions of the water level indicator entering groundwater were decontaminated using a 3-stage decontamination procedure consisting of a potable wash with water containing Liquinox soap followed by a double purified water rinse. The depth to water was measured in all monitoring wells before any of the wells were purged. Wells were measured in the order of least contaminated to the most contaminated based on past analysis. For the ACC wells, the following order of wells was followed: MW-23, MW-24, MW-25, MW-20, MW-17, MW-15, MW-13, MW-14, MW-9, MW-22, MW-12, MW-26, MW-11, MW-4, MW-16, MW-6, MW-8, MW-10, MW-19, MW-18 and MW-21.

The well box and casing were opened carefully to preclude debris or dirt from falling into the open casing. Once the well cap was removed, the water level indicator was lowered into the well until a consistent tone was registered. Several soundings were repeated to verify the measured depth to groundwater. The depth of groundwater was measured from a reference point marked on the lip of each well casing. A licensed surveyor has surveyed the elevation of each reference point. The result was recorded on the field sampling log for each well. Other relevant information such as physical condition of the well, presence of hydrocarbon odors, etc. was also recorded as appropriate on the field sampling log.

The well sounder used for this project was equipped to measure free product (FP) layers thicker than 0.1 inches. FP was indicated as light non-aqueous phase liquid (LNAPL) or dense non-aqueous phase liquid (DNAPL).

Groundwater purging was conducted immediately following the sounding of all monitoring wells. Groundwater samples were analyzed for the following constituents (new wells for TPH-gas and VOCs only):

- Volatile organic compounds (VOCs) using EPA Method 8260B to include all Tentatively Identified Compounds (TICs).

**Former Angeles Chemical Co.  
2004 Fourth Quarter  
Groundwater Monitoring Report  
Page 6**

- Total Petroleum Hydrocarbons as gasoline (TPH-gas) using EPA Method 8015 modified.
- Total dissolved solids (TDS) using EPA Method 160.1.
- Nitrates, chloride, sulfate, sulfide, ferrous iron, and manganese using EPA Methods 352.1, 325.3, 375.4, 376.1, 7380, and 7460, respectively.
- Alkalinity, carbonates, and bicarbonates using EPA Methods 310.1 and Standard Method 4500.
- Total organic carbon (TOC) and dissolved organic carbon (DOC) using EPA Method 415.1.
- 1,4-Dioxane using EPA method 8270.
- Ethylene using GC/FID.

**6.1) Well Purging and Measurement of Field Parameters**

Wells were purged in the above mentioned order (see Section 5.0) to minimize the potential for cross contamination. One equipment blank was collected daily to assess whether cross contamination has occurred. The wells were purged by Blaine Tech Services, Inc (Blaine) and sampled by CSI from December 15 to December 16, 2004. Snap Samplers™ were removed on December 15, 2004. The purge protocol was presented in the Field Sampling Plan as Appendix A in the Groundwater Monitoring Work Plan dated October 23, 2001 and submitted to the DTSC.

Prior to purging, casing volumes was calculated based on total well depth, standing water level, and casing diameter. One casing volume was calculated as:

$$V = \pi(d/2)^2 h \times 7.48$$

where:

V is the volume of one well casing of water (in gallons,  $1 \text{ ft}^3 = 7.48 \text{ gallon}$ );

d is the inner diameter of the well casing (in feet); and

h is the total depth of water in the well - the depth to water level (in feet).

A minimum of three casing volumes of water was purged from each well. Water was collected into a measured bucket to record the purge volume. All purged groundwater was containerized in 55-gallon hazardous waste drum for disposal at a later date.

The pump was initially set at approximately 2-feet below the measured groundwater level in each well. The pump was lowered slowly as the groundwater receded. This ensured that fresh formation water was sampled from each well. Great care was used when deploying the pump to avoid touching the

**Former Angeles Chemical Co.  
2004 Fourth Quarter  
Groundwater Monitoring Report  
Page 7**

bottom of the well and when initiating the pump to minimize sediment disturbances within the well from purging. A low pump rate of 1 gallon per minute (gpm) or less was used to prevent dewatering. Monitoring well MW-9 dewatered during this sampling episode.

After each well casing volume was purged; water temperature, pH, specific conductance (EC), and turbidity were measured using field test meters and the measurements were recorded on Well Monitoring Data Sheets (See Appendix A). Samples were collected after these parameters have stabilized; indicating that representative formation water has entered the well. The temperature, pH, and specific conductance should not vary by more than 10 percent from reading to reading. Turbidity should be less than 5 NTUs, however, the purging process stirred up silty material in each well which made the turbidity measurements of 5 NTUs unattainable. Groundwater samples were collected after water levels recharged to 80 percent of the static water column. Notations of water quality including color, clarity, odors, sediment, etc. were also noted in the data sheets.

All field meters were calibrated according to manufacturers' guidelines and specifications before and after each day of field use. Field meter probes were decontaminated before and after use at each well. The pH, conductivity, and temperature were measured with a Myron-L Ultra Meter and turbidity was measured with a HF Scientific DRT-15C meter. The calibration standards used for pH were 4 and 7 with expiration dates of January 2005. Conductivity was calibrated to a 3900  $\mu\text{s}$  standard with an expiration date of January 2005. A 0.02 NTU standard was used to calibrate the turbidity with an expiration date of January 2005.

## **6.2) Well Sampling**

Groundwater samples were collected using two methods: disposable bailers and Snap Samplers™. Monitoring wells MW-9, MW-11, MW-12, MW-13, MW-14, MW-15, MW-17 and MW-20 were sampled by lowering a separate disposable bailer into each well. Groundwater was transferred from the bailer directly into the appropriate sample containers with preservative, if required, chilled, and processed for shipment to the laboratory. When transferring samples, care was taken not to touch the bailer-emptying device to the sample containers. Snap Samplers were used to collect comparative data from all wells except those with free product. Water samples were transported to Southland Technical Services, Inc., a certified laboratory by the California Department of Health Services (Cert. #1986), to perform the requested analysis.

Groundwater samples were collected in the following order: MW-20, MW-17, MW-15, MW-13, MW-14, MW-12, MW-11 and MW-9. Monitoring

**Former Angeles Chemical Co.  
2004 Fourth Quarter  
Groundwater Monitoring Report  
Page 8**

well MW-22 was completely dry and could not be sampled. Monitoring well MW-26 had insufficient water for sampling.

Snap Samplers™ were used to compare procedural differences and assess the accuracy and reliability of the analytical results for the Snap Samplers™. The Snap Sampler is a groundwater sampling device that employs a double-opening 40 ml VOA vial. The vial seals under the water surface using a remote trigger. The trigger releases an internal, PFA Teflon-coated, stainless steel spring that seals PTFE or PFA Teflon end caps onto the bottle. The end caps are designed to seal the water sample within the VOA vial with no headspace vapor. Once the closed vial is retrieved from the well, the bottle is prepared with standard septa screw caps and a label. All critical actions take place submerged in the well, away from weather, surface contamination and off-gassing loss. The vial can be used directly in standard laboratory autosampler equipment. The sample is never exposed to the open air from the well to the gas chromatograph. Analytical results for the Snap Samplers are included in Appendix B.

Monitoring wells MW-4, MW-8, MW-10, MW-16, MW-18, MW-19 and MW-21 identified FP as LNAPL at a thickness of 0.04-feet, 0.13-feet, 0.06-feet, 0.01-feet, 0.20-feet, 0.64-feet and 0.04-feet, respectively. LNAPL was identified in MW-6 as an oily surface sheen.

Vials for VOC and TPH analysis were filled first to minimize aeration of groundwater collected in the bailer. The laboratory provided vials containing sufficient HCl preservative to lower the pH to less than 2. The vials were filled directly from the bottom-emptying device. The vial was capped with a cap containing a Teflon septum. Blind duplicate samples for the laboratory were labeled as "MW-1" and "MW-2" and were collected from monitoring wells MW-12 and MW-9, respectively. Equipment blanks were collected each day; EB-1 was collected after purging MW-13 and EB-2 was collected after MW-15. All vials were inverted and tapped to check for bubbles to insure zero headspace.

New nitrile gloves were worn during by sampling personnel for each well to prevent cross contamination of the samples. A solvent free label was affixed to each sample container/vial denoting the well identification, date and time of sampling, and an identifying code to distinguish each individual bottle.

### **6.3) Sample Handling**

VOA vials, including laboratory trip blanks, were placed inside of one new Ziplock bag per well and stored in a cooler chilled to approximately 4°C with bagged ice. Water samples were logged on the chain-of-custody forms immediately following sampling of each well to insure proper tracking through analysis to the laboratory.

**Former Angeles Chemical Co.  
2004 Fourth Quarter  
Groundwater Monitoring Report  
Page 9**

**6.4) Waste Management**

FP, purged groundwater, and decontamination water were stored in sealed 55-gallon drums for a period not to exceed 90 days. Stored wastes will be profiled for hazardous constituents and characterized as Non-Hazardous, California Hazardous, or RCRA Hazardous, as appropriate. Any transportation of waste will be under appropriate manifest.

**7.0) FREE PRODUCT**

Free product (FP) was identified as LNAPL in monitoring wells MW-4, MW-8, MW-10, MW-16, MW-18, MW-19 and MW-21 at a thickness of 0.04-feet, 0.13-feet, 0.06-feet, 0.01-feet, 0.20-feet, 0.64-feet and 0.04-feet, respectively. Each well that contains or has contained FP is tabulated as follows with the total amount of FP removed since each well was installed.

<b>Well ID</b>	<b>Total FP Removed (gallons)</b>
MW-4	0.76
MW-6	2
MW-8	12.81
MW-10	5.18
MW-16	1.15
MW-18	52.09
MW-19	7.13
MW-21	0.41

Laboratory analysis of FP was performed in October 2001 from MW-6, in June 2002 from MW-6 and MW-8, in December 2003 from MW-16 and MW-19, in March 2004 from MW-10, MW-18 and MW-19, and in September 2004 from MW-8, MW-10, and MW-19. Laboratory analysis results are presented in Table 2. Based on the results, the FP contained in MW-6 and MW-8 appears to be different from the FP contained in MW-10, MW-16 and MW-19 when comparing TPH-gas concentrations. Furthermore, the VOC analysis results indicate that FP from MW-10 and MW-18 are similar compared to the FP from MW-19.

**8.0) GROUNDWATER SAMPLE RESULTS**

Groundwater samples collected from the first water zone monitoring wells MW-9, MW-11 and MW-12 in December 2004 contained dissolved TPH-gas at 1,530 µg/L, 95,500 µg/L, and 2,290 µg/L, respectively. See Table 3 and Figure 9 for dissolved TPH-gas concentrations. Graphs of dissolved contaminant concentrations over time are provided in Appendix B. Note that the previously high dissolved TPH-gas

**Former Angeles Chemical Co.  
2004 Fourth Quarter  
Groundwater Monitoring Report  
Page 10**

concentrations from MW-19, MW-10 and MW-18 represent the LNAPL that is now present in those first water wells.

Groundwater samples collected from the upper A1 zone monitoring wells MW-13, MW-14, MW-15, MW-17 and MW-20 in December 2004 contained TPH-gas ranging from 319 µg/L in MW-15 to 129 µg/L in MW-17. In MW-13, MW-14 and MW-15 the levels decreased from the previous sampling event, while the levels increased in MW-17 and MW-20. The lower A1 zone monitoring wells MW-23, MW-24 and MW-25 identified dissolved TPH-gas as 140 µg/L, 213 µg/L and 198 µg/L, respectively. See Table 3 and Figure 10 for dissolved TPH-gas concentrations. Contaminant graphs for the A1 zone identified lower dissolved TPH-gas concentrations in most wells during the month of June.

Concentrations of dissolved BTEX in the first water zone ranged from 23,010 µg/L in MW-11 to <32 µg/L in MW-9 (See Table 4 and Figure 9 for dissolved BTEX concentrations). Most of the total dissolved BTEX concentrations consist of benzene and toluene. Contaminant graphs for these two components are provided in Appendix B. In general, most first water wells contained their respective maximum dissolved benzene and toluene concentrations during the 1<sup>st</sup> or 3<sup>rd</sup> quarter.

Dissolved BTEX in the upper A1 zone ranged between <39.8 µg/L in MW-15 to <4 µg/L in MW-13, MW-17 and MW-20 (See Tables 4 and 5 and Figure 10 for dissolved BTEX concentrations). Like the first water zone, the upper A1 zone contains mostly benzene and toluene as the total dissolved BTEX concentration. Contaminant graphs for these two components contained higher dissolved benzene and toluene concentrations in most wells during the month of December except for monitoring wells MW-15 and MW-21 which identified maximum concentrations in September 2004. The lower A1 zone monitoring wells MW-23, MW-24, and MW-25 identified no detectable concentrations of dissolved BTEX.

Groundwater sample results from the first water zone identified high VOC concentrations compared to the relatively low VOC concentrations in the A1 zone (See Tables 4 and 5).

Dissolved PCE was identified in the first water zone at a maximum concentration of <200 µg/L from MW-11. Dissolved TCE was identified at a maximum of <200 µg/L from MW-11 in the first water zone (See Figure 11). Dissolved contaminant graphs identified relatively consistent dissolved PCE and TCE concentrations from first water wells except for MW-26 whose concentrations fluctuated greatly. Maximum concentrations of dissolved PCE and TCE in the upper A1 zone were detected as 81.1 µg/L in /mW-17 and 47 µg/L in /mW-15, respectively (See Figure 12). The lower A1 zone contained maximum concentrations of dissolved PCE as 86.1 µg/L and TCE as 65.2 µg/L from MW-25. Wells in the upper A1 zone exhibited a general increase in dissolved

**Former Angeles Chemical Co.  
2004 Fourth Quarter  
Groundwater Monitoring Report  
Page 11**

PCE and TCE, while the lower A1 zone showed decreased levels of dissolved PCE and TCE (See Appendix B).

Dissolved concentrations of 1,1,1-TCA were identified in the first water zone at a maximum of 290 µg/L in MW-11 (See Figure 11). MW-9 and MW-12 contained dissolved 1,1,1-TCA at 27.8 µg/L and <2 µg/L, respectively. Contaminant graphs for the first water identified that in most wells with elevated dissolved 1,1,1-TCA (<100 µg/L) the maximum concentrations were detected during the month of December and most wells with low level dissolved 1,1,1-TCA the maximum concentrations were detected in June. Dissolved 1,1,1-TCA was detected in the A1 zone at a maximum of <4 µg/L in MW-14 (See Figure 12). Dissolved 1,1,1-TCA was also identified in MW-15 at 2.2 µg/L. No significant concentrations of 1,1,1-TCA (above 5 µg/L) were detected in all other upper and lower A1 zone monitoring wells. Graphs of dissolved 1,1,1-TCA over time in the A1 zone June 2004 as the first episode where concentrations were all below 14 µg/L. Only concentrations in MW-21 rose above that level during September 2004.

Groundwater samples were also analyzed for 1,4-Dioxane, a preservative used in 1,1,1-TCA to prolong its shelf life. However, 1,4-Dioxane is more soluble in groundwater than 1,1,1-TCA and will often lead the dissolved 1,1,1-TCA plume. First water zone monitoring wells MW-9, MW-11 and MW-12 identified dissolved 1,4-Dioxane concentrations between 468 µg/L and <2 µg/L. Dissolved concentrations in most wells have decreased over time (See Appendix B). A1 zone monitoring wells MW-13, MW-14, MW-15, MW-17 and MW-20 identified dissolved 1,4-Dioxane concentrations between 51 µg/L and <2 µg/L. Contaminant graphs display that dissolved 1,4-Dioxane has remained stable except for MW-21, MW-15 and MW-14, which identified maximum concentrations during the 2004 third quarter.

Concentrations of dissolved chlorinated VOC daughter products were relatively elevated compared to their respective parent VOCs identified above and also showed a trend of higher dissolved concentrations in the first water zone compared to the deeper A1 zone.

1,1-DCA is a daughter product from reductive dehalogenation of 1,1,1-TCA and from carbon-carbon double bond reduction of 1,1-DCE, another daughter product. Dissolved 1,1-DCA concentrations were identified between 85,300 µg/L and 156 µg/L in the first water zone (See Figure 11). The greatest dissolved 1,1-DCA concentration was observed in MW-11. A historic maximum concentration was identified in MW-11 during December 2004 (See Appendix B). Dissolved 1,1-DCA concentrations in the upper A1 zone ranged between 101 µg/L and <1 µg/L (See Figure 12). Dissolved 1,1-DCA concentrations identified in the lower A1 zone were all <1 µg/L. Most wells in the A1 zone identified a slight decrease of dissolved 1,1-DCA concentrations since the previous episode.

**Former Angeles Chemical Co.  
2004 Fourth Quarter  
Groundwater Monitoring Report  
Page 12**

Dissolved 1,1-DCE, a daughter product of the dehydrohalogenation of 1,1,1-TCA and reductive dehalogenation of TCE, was identified at concentrations ranging from 731 µg/L to 1.8 µg/L in the first water zone (See Figure 11). The maximum dissolved 1,1-DCE concentration was observed in MW-9. The next largest dissolved 1,1-DCE concentration was identified as 360 µg/L in groundwater collected from MW-11. Historically, dissolved concentrations of 1,1-DCE fluctuate with no observable pattern (See Appendix B). Dissolved 1,1-DCE concentrations in the upper A1 zone ranged between 185 µg/L and 5.5 µg/L (See Figure 12). Concentrations of detected dissolved 1,1-DCE were identified at a maximum of 9.0 µg/L in the lower A1 zone from MW-25. Most wells in the A1 zone identified elevated dissolved 1,1-DCE concentrations in June except for MW-14, MW-15 and MW-21, which were elevated in March and September.

Cis-1,2 DCE is also a daughter product of the dehydrohalogenation of 1,1,1-TCA and reductive dehalogenation of TCE. Concentrations of dissolved cis-1,2-DCE were identified between 13,600 µg/L (in MW-11) and 2 µg/L in the first water zone (See Figure 11). Historically, dissolved concentrations of cis-1,2-DCE fluctuate with no observable pattern (See Appendix B). Dissolved cis-1,2-DCE concentrations in the upper A1 zone ranged from 5.5 µg/L to a maximum of 79.2 µg/L identified from MW-21 (See Figure 12). Upper A1 zone monitoring well MW-15 contained the second largest dissolved cis-1,2-DCE concentration of 72.2 µg/L. The lower A1 zone contained dissolved cis-1,2-DCE at a maximum of 5.9 µg/L from MW-24. Contaminant graphs from the A1 zone identified a general decrease in dissolved cis-1,2-DCE over time with the exception of MW-15 and MW-21. MW-21 identified elevated concentrations (<2,500 µg/L) in March and September 2004 and MW-15 identified elevated concentrations in March 2004.

Vinyl chloride (VC) is a by-product from the dehydrohalogenation and reductive dehalogenation of the chlorinated VOC daughter products mentioned above. Similar to the other VOCs, concentrations of dissolved VC were at lower concentrations in the deeper A1 zone than in the first water zone. Dissolved VC concentrations were identified between 5,410 µg/L (in MW-11) and 3.6 µg/L in the first water zone (See Figure 11). An increase in VC in the first water zone was observed over time in MW-11 (See Appendix B). Dissolved VC concentrations in the upper A1 zone ranged from 34.7 µg/L to <1 µg/L (See Figure 12). The maximum dissolved VC concentration was located along the southwest property line in monitoring well MW-15. No detectable concentrations of dissolved VC were identified in the lower A1 zone. The A1 zone wells observed maximum dissolved VC concentrations in December 2004 for MW-14, MW-15 and MW-21.

No dissolved methylene chloride was identified during the September 2004 sampling event. Dissolved methylene chloride (MC) concentrations were <200 µg/L to <2 µg/L in the first water zone (See Figure 11). Methylene chloride was <4 µg/L in

**Former Angeles Chemical Co.  
2004 Fourth Quarter  
Groundwater Monitoring Report  
Page 13**

MW-14 and <2 µg/L in the remaining upper and all lower A1 zone monitoring wells sampled (See Figure 12).

Dissolved acetone was identified in first water zone monitoring well MW-11 at <500 µg/L. Dissolved MEK concentrations were non-detect ranging from <500 µg/L (in MW-11) to <5 µg/L in first water wells (See Figure 13). No detectable concentrations of acetone or MEK were identified above method detection limit from the 2004 4<sup>th</sup> quarter groundwater monitoring episode in both the upper and lower A1 zone (See Figure 14). Historically, dissolved concentrations of acetone and MEK fluctuate with no observable pattern (See Appendix B).

No detectable concentrations of dissolved MIBK (<500 µg/L to <2 µg/L) were identified in the first water wells sampled this quarter (See Figure 13). No detectable concentrations (<10 µg/L to <5 µg/L) were identified in all upper and lower A1 zone monitoring wells (See Figure 14).

Most groundwater samples were also analyzed for biodegradation indicators (See Table 6 for laboratory results). Further data needs to be compared prior to evaluating biodegradation processes. Subsequent groundwater analysis will include these biodegradation indicators. All groundwater laboratory analytical reports for the 2004 4<sup>th</sup> quarter groundwater monitoring episode are included as Appendix C.

## **9.0 CONCLUSIONS**

Based on groundwater elevation data, CSI concludes that seasonal changes affect both the first water and A1 zones. In general, both groundwater zones observed a period of discharge during winter and recharge during summer months.

Based on the recent groundwater sample results, CSI concludes that the site is impacted by LNAPL in the first water and upper A1 zones and dissolved VOCs in both the first water and A1 zones. LNAPL was identified in seven first water monitoring wells (MW-4, MW-6, MW-8, MW-10, MW-16, MW-18 and MW-19) and upper A1 zone well MW-21. Elevated dissolved phase VOCs were identified in first water monitoring wells MW-11. Dissolved VOC concentrations, however, were detected at higher concentrations in the first water zone compared to the A1 zone by one order of magnitude.

CSI also concludes that the recent groundwater sampling data provides preliminary support that the site has potential for intrinsic biodegradation. Dissolved parent VOC (PCE, TCE and 1,1,1-TCA) concentrations were identified at concentrations less than 500 µg/L. Daughter VOC constituents such as 1,1-DCA, 1,1-DCE, cis-1,2-DCE, and VC identified dissolved concentrations of up to 85,300 µg/L. The low parent VOC concentration to high daughter VOC concentration ratio is a preliminary indicator

**Former Angeles Chemical Co.  
2004 Fourth Quarter  
Groundwater Monitoring Report  
Page 14**

of intrinsic biodegradation. However, further groundwater monitoring analysis is needed to determine whether intrinsic biodegradation is occurring.

**10.0) RECOMMENDATIONS**

CSI recommends that quarterly groundwater monitoring for VOCs and TPH-gas be continued at the former ACC property. CSI further recommends that free product removal be performed on a monthly basis to reduce its mass. It is anticipated that a soil vapor extraction system and an automated free product recovery system will be in place this soon provided that the on-site security is in place. CSI is currently developing the groundwater remedial investigation/feasibility study report.

**TABLES**

Table 1: Well and Screen Elevations and Groundwater Depths to Water and Elevations (in feet)

	Date	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24	MW-25	MW-26	
Well Elevation (TOC)	NA	150.42	150.79	148.27	149.39	148.62	149.63	149.16	149.41	149.12	150.09	150.22	150.66	150.6	148.32	149.03	149.63	149.2	149.14	150.02	150.67	148.42	149.9	150.64	150.83			
	12/22/2004																											
Screened Interval (bg)	40 - 60	30 - 50	29 - 49	17 - 27	20 - 30	34 - 55	30.5 - 40.5	30.5 - 45.5	25 - 40	30 - 40	30 - 40	52 - 62	55 - 65	54 - 64	28 - 46	56 - 66	21 - 46	30 - 45	57 - 87	53 - 63	30 - 40	71 - 81	67 - 77	71 - 81	30 - 40			
Screen Elevation																												
Top	NA	120.42	121.79	121.27	119.39	114.62	119.13	118.66	124.41	119.12	120.09	98.22	95.66	96.6	119.32	93.03	128.63	119.2	92.14	87.02	120.67	77.42	82.9	79.64	120.83			
Bottom	NA	100.42	101.79	101.27	109.39	93.62	109.13	103.66	109.41	109.12	110.09	88.22	85.66	85.6	102.32	83.03	103.63	104.2	82.14	87.02	110.67	67.42	72.9	89.84	110.83			
Depth to Water (bg)																												
Feb-94		30.05	28.8	29.7	23.35	24.85	24.53																					
		35.62	35.26	38.42	26.2	28.52	26.19																					
Oct-01		37.41	37.91	39.19	26.35	NA	28.7																					
Nov-01	NA	NA	NA	NA	26.36	28.85	NA																					
Feb-02		36.2	36.39	37.39	26.44	30.32	29.21																					
Jun-02		37.92	38.75	39.19	26.46	NA	30.07	30.91	30.98																			
Oct-02		42.45	43.66	44.66	26.48	30.28	34.11	32.68	34.7																			
Dec-02	NA	43.19	44.22	26.28	FP only	34.03	33.62	34.67	32.63	32.71	33.26	41.65	43.06	43.63	33.89	40.44	33.06	33.33	41.11	42.34								
Mar-03	NA	41.07	41.36	26.36	FP only	33.18	32.81	33.22	32.44	32.49	33.07	38.77	40.95	41.53	32.01	38.28	35.36	33.42	39.08	40.36								
Jun-03	NA	39.98	39.95	26.35	FP only	30.44	30.85	31.1	30.41	30.15	31.05	37.85	39.2	39.62	29.99	36.41	33.13	38.3	37.05	38.5	35.8	34.23	37.73	39.22	36.7			
Sep-03	NA	NA	NA	26.41	FP only	NA	32.34	34.29	31.68	31.84	33.26	42.16	43.79	44.19	33.46	40.65	38.37	33.29	41.57	42.88	39.87	39.56	42.69	44.35	38.45			
Dec-03	NA	NA	NA	26.39	FP only	NA	34.55	36.96	33.71	33.73	34.3	45.12	46.72	46.84	38.85	43.47	42.73	38.65	44.53	45.44	Dry	42.65	45.69	47.35	39.6			
Mar-04	NA	NA	NA	26.41	FP only	NA	35.2	36.19	34.85	34.36	35.02	45.98	47.41	47.92	36.88	44.56	40.28	37.15	45.22	46.59	38.51	43.26	46.41	46.03	36.7			
Jun-04	NA	NA	NA	26.4	FP only	NA	35.42	39.15	35.08	35.38	35.2	46.81	48.31	48.49	38.36	45.15	45.74	37.23	46.29	47.48	39.92	44.24	47.32	46.95	39.25			
Sep-04	NA	NA	NA	26.42	FP only	NA	36.18	41.06	36.53	35.92	35.82	49.27	51.06	51.32	40.1	48.21	FP only	38.34	48.92	50.09	Dry	46.98	49.93	51.82	NA			
Dec-04	NA	NA	NA	26.47	28.8	NA	36.02	41.69	35.83	38.28	36.32	51.18	52.71	53.18	40.34	49.57	40.5	37.23	50.59	51.62	Dry	48.54	51.35	53.22	39.52			
Water Elevation																												
Feb-94	NA	121.62	121.09	124.92	124.54	124.09																						
Nov-00	NA	115.17	114.37	122.07	120.87	120.43																						
Oct-01	NA	112.51	111.6	121.92	NA	118.92																						
Nov-01	NA	NA	NA	121.81	120.54	NA																						
Feb-02	NA	114.03	113.4	121.83	119.07	118.41																						
Jun-02	NA	111.67	111.6	121.81	NA	118.55	118.72	118.18																				
Oct-02	NA	106.76	106.13	121.79	119.11	114.51	116.95	114.46																				
Dec-02	NA	107.23	108.57	121.99	NA	114.59	116.01	114.49	116.78	116.41	116.83	108.57	107.6	106.97	114.63	108.59	116.57	115.87	108.03	107.68								
Mar-03	NA	109.35	109.44	121.91	NA	115.44	116.82	115.94	116.97	116.63	117.02	110.45	109.71	109.07	116.31	110.75	114.27	115.78	110.06	109.66								
Jun-03	NA	110.44	110.84	121.92	NA	118.18	118.78	118.06	119	118.97	119.04	112.37	111.46	110.98	118.33	112.62	115.5	110.9	112.09	111.52	114.87	114.19	112.17	111.42	114.13			
Sep-03	NA	NA	NA	121.86	NA	NA	117.28	114.87	117.73	117.28	116.83	108.06	106.87	106.41	114.84	108.38	111.26	115.91	107.57	107.34	110.8	108.87	107.21	106.29	112.38			
Dec-03	NA	NA	NA	121.88	NA	NA	115.08	112.2	115.7	115.39	115.79	105.1	103.94	103.76	111.47	105.56	106.9	110.55	104.61	104.58	Dry	105.77	104.21	103.29	111.23			
Mar-04	NA	NA	NA	121.88	NA	NA	114.43	110.97	114.58	114.76	115.07	104.24	103.25	102.68	111.44	104.47	109.38	112.05	103.92	103.43	112.16	105.17	103.48	102.61	114.13			
Jun-04	NA	NA	NA	121.87	NA	NA	114.21	110.31	114.33	113.74	114.89	103.41	102.35	102.11	109.96	103.88	111.97	102.85	102.54	110.75	104.18	102.58	101.89	111.58				
Sep-04	NA	NA	NA	121.85	NA	NA	113.45	108.11	112.88	113.2	114.27	100.95	99.8	99.28	108.22	100.82	NA	110.86	100.22	99.93	NA	101.44	99.97	99.02	NA			
Dec-04	NA	NA	NA	121.8	119.59	NA	113.61	107.47	113.78	112.85	113.77	99.04	97.95	97.42	107.98	99.46	109.13	111.97	98.55	98.4	NA	99.88	98.55	97.42	111.31			

**Table 2: TPH-gas and VOCs from Free Product Sample Results using EPA Methods 8015 and 8260 ( $\mu\text{g/L}$ )**

	<u>Date</u>	<u>MW-6</u>	<u>MW-8</u>	<u>MW-10</u>	<u>MW-16</u>	<u>MW-18</u>	<u>MW-19</u>
Screened Interval ( feet bg)		20-30	30.5-40.5	25-40	29-46	21-46	30-45
TPH-gas	Jun-02	8.E+08	8.E+08	NA	NA	NA	NA
	Dec-03	NA	NA	NA	4.55E+08	NA	4.25E+08
	Mar-04	NA	NA	446000	NA	NA	NA
<b>VOCs</b>							
Acetone	Oct-01	<25,000*					
	Mar-04	NA	NA	<1,250,000	NA	<1,250,000	<1,250,000
	Sep-04	NA	<2,500,000	<2,500,000	NA	NA	<2,500,000
Benzene	Oct-01	110,000*					
	Mar-04	NA	NA	<250,000	NA	<250,000	365,000
	Sep-04	NA	<100,000	<100,000	NA	NA	464,000
2-Butanone (MEK)	Oct-01	<25,000*					
	Mar-04	NA	NA	<1,250,000	NA	<1,250,000	<1,250,000
	Sep-04	NA	<2,500,000	<2,500,000	NA	NA	<2,500,000
Chloroethane	Mar-04	NA	NA	<500,000	NA	<500,000	<500,000
	Sep-04	NA	<200,000	<200,000	NA	NA	<200,000
1,1-Dichloroethane	Oct-01	592,000*					
	Mar-04	NA	NA	3,190,000	NA	1,590,000	625,000
	Sep-04	NA	4,040,000	5,740,000	NA	NA	1,326,000
1,2-Dichloroethane	Oct-01	<5,000*					
	Mar-04	NA	NA	<500,000	NA	<500,000	<500,000
	Sep-04	NA	<200,000	<200,000	NA	NA	<200,000
1,1-Dichloroethene	Oct-01	417,000*					
	Mar-04	NA	NA	730,000	NA	928,000	4,840,000
	Sep-04	NA	782,000	710,000	NA	NA	5,860,000
cis 1,2-Dichloroethene	Oct-01	1,060,000*					
	Mar-04	NA	NA	1,530,000	NA	1,620,000	1,630,000
	Sep-04	NA	1,765,000	1,900,000	NA	NA	2,793,000
trans 1,2-Dichloroethene	Oct-01	<5,000*					
	Mar-04	NA	NA	<500,000	NA	<500,000	<500,000
	Sep-04	NA	<200,000	<200,000	NA	NA	<200,000
1,4 Dioxane	Mar-04	NA	NA	<12,500,000	NA	<12,500,000	<12,500,000
	Sep-04	NA	<5,000,000	<5,000,000	NA	NA	<5,000,000
Ethylbenzene	Oct-01	4,320,000*					
	Mar-04	NA	NA	5,330,000	NS-FP	7,080,000	6,960,000
	Sep-04	NA	5,910,000	7,280,000	NA	NA	8,770,000

**Table 2: TPH-gas and VOCs from Free Product Sample Results using EPA Methods 8015 and 8260 ( $\mu\text{g/L}$ )**

VOCs	Date	MW-6	MW-8	MW-10	MW-16	MW-18	MW-19
Methylene Chloride	Oct-01	<5,000*					
	Mar-04	NA	NA	<500,000	NA	<500,000	<500,000
	Sep-04	NA	<200,000	<200,000	NA	NA	<200,000
4-Methyl-2-pentanone	Oct-01	<25,000*					
	Mar-04	NA	NA	<1,250,000	NA	<1,250,000	<1,250,000
	Sep-04	NA	<2,500,000	<2,500,000	NA	NA	<2,500,000
Naphthalene	Oct-01	1,680,000*					
	Mar-04	NA	NA	1,980,000	NA	1,620,000	4,120,000
	Sep-04	NA	3,260,000	2,890,000	NA	NA	6,000,000
n-Propylbenzene	Mar-04	NS-FP	NS-FP	2,820,000	NA	3,230,000	2,980,000
	Sep-04	NA	3,787,000	3,700,000	NA	NA	4,240,000
Tetrachloroethene	Oct-01	531,000*					
	Mar-04	NA	NA	<500,000	NA	543,000	4,820,000
	Sep-04	NA	<200,000	<200,000	NA	NA	2,870,000
1,1,1-Trichloroethane	Oct-01	28,100,000*					
	Mar-04	NA	NA	8,870,000	NA	4,140,000	35,000,000
	Sep-04	NA	5,460,000	7,330,000	NA	NA	45,700,000
Trichloroethene	Oct-01	753,000*					
	Mar-04	NA	NA	<500,000	NA	<500,000	560,000
	Sep-04	NA	<200,000	<200,000	NA	NA	300,000
1,2,4-Trimethylbenzene	Oct-01	22,100,000*					
	Mar-04	NA	NA	31,900,000	NA	30,600,000	45,400,000
	Sep-04	NA	43,400,000	37,000,000	NA	NA	60,100,000
1,3,5-Trimethylbenzene	Oct-01	5,400,000*					
	Mar-04	NA	NA	8,560,000	NA	9,020,000	9,480,000
	Sep-04	NA	11,746,000	10,100,000	NA	NA	13,500,000
Toluene	Oct-01	9,010,000*					
	Mar-04	NA	NA	8,620,000	NA	15,300,000	11,400,000
	Sep-04	NA	9,010,000	15,200,000	NA	NA	16,400,000
Vinyl Chloride	Oct-01	<5,000*					
	Mar-04	NA	NA	<500,000	NA	<500,000	<500,000
	Sep-04	NA	<100,000	<100,000	NA	NA	<100,000
Xylenes	Oct-01	10,370,000*					
	Mar-04	NA	NA	17,600,000	NA	22,500,000	16,000,000
	Sep-04	NA	21,400,000	26,300,000	NA	NA	22,100,000

NA= Not Analyzed.

Blue= Chemicals stored on-site.

Red= Transformation compounds.

Table 3: Conductivity, pH, and TPH-gas Groundwater Sample Results using EPA Method 8015 (µg/L)

	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24	MW-25	MW-26				
Screened Interval (ft)	40-60	30-50	29-49	17-27	20-30	34-55	30.5-40.5	30.5-45.5	25-40	30-40	30-40	52-62	55-65	54-64	29-40	56-66	21-46	30-45	57-67	53-63	30-40	71-81	67-77	71-81	30-40					
DTW (ft)																														
Feb-94	30.05	28.8	29.7	23.35	24.85	24.53																								
Nov-00	35.82	35.28	36.42	26.2	28.52	28.19																								
Oct-01	37.41	37.91	39.19	25.35	NA	28.7																								
Nov-01	NA	NA	NA	28.36	28.85	NA																								
Feb-02	38.2	36.39	37.39	28.44	30.32	29.21																								
Jun-02	37.92	38.75	39.19	28.46	NA	30.07	30.91	30.98																						
Oct-02	42.45	43.86	44.68	28.48	30.28	34.11	32.68	34.7																						
Dec-02	NA	43.19	44.22	28.28	FP only	34.03	33.82	34.87	32.83	32.71	33.26	41.65	43.06	43.63	33.89	40.44	33.06	33.33	41.11	42.34										
Mar-03	NA	41.07	41.35	28.38	FP only	33.18	32.81	33.22	32.44	32.49	33.07	39.77	40.95	41.53	32.01	38.28	35.36	33.42	39.08	40.36										
Jun-03	NA	39.98	39.95	26.35	FP only	30.44	30.85	31.1	30.41	30.15	31.05	37.85	39.2	39.62	29.98	36.41	33.13	38.3	37.05	38.5	35.8	34.23	37.73	39.22	36.7					
Sep-03	NA	NA	NA	26.41	FP only	NA	32.34	34.29	31.88	31.84	33.26	42.16	43.79	44.19	33.48	40.85	38.37	33.29	41.57	42.68	39.87	39.55	42.69	44.35	38.45					
Dec-03	NA	NA	NA	26.38	FP only	NA	34.55	36.96	33.71	33.73	34.3	45.12	46.72	46.84	36.85	43.47	42.73	38.65	44.53	45.44	Dry	42.85	45.89	47.35	39.6					
Mar-04	NA	NA	NA	26.41	FP only	NA	35.2	38.19	34.85	34.38	35.02	45.98	47.41	47.92	38.88	44.56	40.28	37.15	45.22	48.59	38.51	43.25	46.41	48.03	36.7					
Jun-04	NA	NA	NA	26.4	FP only	NA	35.42	38.15	35.08	35.98	35.2	46.81	48.31	48.49	38.36	45.15	45.74	37.23	46.29	47.48	39.92	44.24	47.32	48.85	39.25					
Sep-04	NA	NA	NA	26.42	FP only	NA	38.18	41.05	36.53	35.92	35.82	49.27	51.08	51.32	40.1	48.21	FP only	38.34	48.92	50.09	Dry	46.98	49.93	51.82	NA					
Dec-04	NA	NA	NA	26.47	29.8	NA	38.02	41.69	35.83	36.26	36.32	51.18	52.71	53.18	40.34	49.57	40.5	37.23	50.59	51.62	Dry	46.54	51.35	53.22	39.52					
Conductivity	Dec-02	NA	2011	2065	NA	NA	2710	NA	2331	2871	2686	1572	1374	1866	1821	2106	1885	2515	5677	1907	1748									
	Mar-03	NA	2094	1974	NA	NA	2768	NA	2325	4382	3793	1482	1802	1913	1818	2011	1892	2843	5812	1823	1895									
	Jun-03	NA	1763	1961	NA	NA	2882	NA	2406	4439	3245	1192	1832	1871	1851	1931	1913	2602	6017	1788	1780	2500	1200	1300	1300	3000				
	Sep-03	NA	NA	NA	NA	NA	NA	NA	2540	3878	3580	1313	1904	2100	1948	2219	2530	3028	NS-FP	1988	1910	NS-NW	2265	1799	1883	NS-NW				
	Dec-03	NA	NA	NA	NA	NA	NA	NA	2585	2850	3070	1387	1953	1964	1927	NS-FP	1981	2874	NS-FP	2192	1668	NS-NW	NA	NA	NA	NS-NW				
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	2653	NS-FP	2582	1313	2060	1999	2073	NS-FP	1954	NS-FP	2166	2080	1663	NA	NA	NA	2302					
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	2474	NS-FP	2502	1270	1812	1764	1828	NS-FP	1897	NS-FP	1779	1807	NA	1117	1507	1807	2032					
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	2554	NS-FP	2374	1171	2014	1818	2032	NS-FP	1781	NS-FP	1997	1906	NA	NA	NA	NA	NA	NS				
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	2075	NS-FP	1595	1016	1750	1809	1725	NS-FP	1663	NS-FP	1843	NS-FP	NS-NW	NA	NA	NA	NA	NS	NS-NW			
pH	Dec-02	NA	6.83	6.82	NA	NA	6.75	NA	6.58	6.82	6.87	7.02	6.97	6.83	6.93	6.58	6.93	6.68	7.02	6.98	6.99									
	Mar-03	NA	6.6	6.9	NA	NA	6.7	NA	7	6.7	6.6	7.1	7.5	7	7.8	6.8	7.2	6.6	5.9	7.3	7.6									
	Jun-03	NA	6.9	6.7	NA	NA	6.6	NA	6.7	6.4	6.6	6.4	6.8	6.8	6.7	6.5	6.8	6.3	6.7	6.9	6.8	NA	NA	NA	NA	NA	NA			
	Sep-03	NA	NA	NA	NA	NA	NA	NA	6.81	6.55	6.52	6.49	6.93	6.9	6.75	6.7	6.85	6.23	NS-FP	6.78	6.77	NS-NW	6.64	6.74	6.67	NS-NW				
	Dec-03	NA	NA	NA	NA	NA	NA	NA	6.9	6.6	6.7	7.4	6.8	7.1	7	NS-FP	7.1	6.4	NS-FP	7	6.8	NS-NW	NA	NA	NA	NS-NW				
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	6.7	NA	7	7	6.8	6.8	6.7	6.5	6.7	NS-FP	6.7	NS-FP	6.7	6.8	6.4	NA	NA	NA	7			
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	6.7	NS-FP	6.6	6.9	6.9	6.7	6.7	6.5	6.8	NS-FP	6.9	NS-FP	6.7	6.8	6.4	NA	NA	NA	5.8			
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	6.87	NS-FP	6.65	7	6.79	6.74	6.8	6.5	6.79	NS-FP	6.79	NS-FP	6.26	6.74	NA	NA	NA	NA	NA	NS		
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	6.9	NS-FP	6.6	6.9	6.6	6.8	6.6	6.4	6.8	NS-FP	6.5	NS-FP	NS-NW	NA	NA	NA	NA	NA	NS	NS-NW		

Table 3 (cont.): Conductivity, pH, and TPH-gas Groundwater Sample Results using EPA Method 8015 ( $\mu\text{g/L}$ )

	Date	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24	MW-25	MW-26	
TPH-gas	Feb-04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nov-04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Oct-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Feb-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Jun-02	724,000	14,800	22,500	NS-FP	Table 2	6,530	Table 2	22,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Oct-02	52,300	7,370	28,900	NS-FP	NS-FP	5,300	52300	1,730	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Dec-02	NA	9,330	11,400	NS-FP	NS-FP	6,250	NS-FP	1,530	88,300	22,800	9,420	98	7,130	328	3,250	77	41,700	107,000	51	405	NA	NA	NA	NA	NA	NA	
	Mar-03	NA	15,800	12,200	NS-FP	NS-FP	3,470	NS-FP	2,500	85,100	24,700	1,730	<50	1,480	1,270	5,350	<50	83,900	177,000	52	745	NA	NA	NA	NA	NA	NA	
	Jun-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Sep-03	NA	NA	NA	NA	NA	NA	NA	1,280	59,800	30,200	1,300	106	89	226	1,480	<50	44,900	NA	<50	998	NS-NW	<50	<50	<50	59,200	NA	NA
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	1,280	77,200	51,500	5,390	64	521	7BD	Table 2	<50	40,600	Table 2	1060	2,140	NS-NW	NA	NA	NA	NA	NS-NW	NA
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	1,430	Table 2	43,500	4,410	<50	154	1,680	NS-FP	<50	NS-FP	NS-FP	<50	2,650	3,060	NA	NA	NA	NA	41,600	NA
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	1,350	NS-FP	43,300	1,780	<50	120	172	NS-FP	<50	NS-FP	NS-FP	<50	511	NA	NA	NA	NA	NA	NA	
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	1 NS-FP	1,500	NS-FP	82,400	1,730	224	484	1,040	NS-FP	<50	NS-FP	NS-FP	<50	8,090	NS-NW	NA	NA	NA	NA	NS	NS
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	1,530	NS-FP	95,500	2,280	205	225	319	NS-FP	129	NS-FP	NS-FP	138	NS-FP	NS-NW	140	213	198	NS-NW	NA	

DTW= Depth to Water (below top of well casing).

NA= Not Analyzed.

NS-FP= Not Sampled Free Product present.

NS-NW= Not Sampled Not Enough Water present.

\*= Abandoned Well.

Table 4: Detected VOCs from Groundwater Sample Results using EPA Method 8260 ( $\mu\text{g/L}$ )

	Date	MW-1 <sup>a</sup>	MW-2 <sup>a</sup>	MW-3 <sup>a</sup>	MW-4 <sup>a</sup>	MW-5 <sup>a</sup>	MW-6 <sup>a</sup>	MW-7 <sup>a</sup>	MW-8 <sup>a</sup>	MW-9 <sup>a</sup>	MW-10 <sup>a</sup>	MW-11 <sup>a</sup>	MW-12 <sup>a</sup>	MW-13 <sup>a</sup>	MW-14 <sup>a</sup>	MW-15 <sup>a</sup>	MW-16 <sup>a</sup>	MW-17 <sup>a</sup>	MW-18 <sup>a</sup>	MW-19 <sup>a</sup>	MW-20 <sup>a</sup>	MW-21 <sup>a</sup>	MW-22 <sup>a</sup>	MW-23 <sup>a</sup>	MW-24 <sup>a</sup>	MW-25 <sup>a</sup>	MW-26 <sup>a</sup>					
Screened Interval (feet/bgs)		40-60	30-50	29-49	17-27	20-30	34-55	30.5-40.5	30.5-45.5	25-40	30-40	30-40	52-62	55-65	54-64	29-46	58-68	21-46	30-45	57-67	53-63	30-40	71-81	67-77	71-81	30-40						
Depth to Water (feet)	Feb-04	30.05	28.8	29.7	23.35	24.85	24.53																									
DTW	Nov-00	35.62	34.28	38.42	26.2	28.52	28.19																									
	Oct-01	37.41	37.91	38.19	26.35	NA	28.7																									
	Nov-01	NA	NA	NA	26.36	28.85	NA																									
	Feb-02	38.2	38.39	37.39	26.44	26.46	NA	30.07	30.91	30.98																						
	Jun-02	37.92	38.75	39.19	26.46	NA	30.07	30.91	30.98																							
	Oct-02	42.45	43.66	44.66	26.48	30.28	34.11	32.68	34.7																							
	Dec-02	NA	43.19	44.22	26.28	FP only	34.03	33.82	34.67	32.63	32.71	33.28	41.65	43.06	43.83	33.68	40.44	33.06	33.33	41.11	42.34											
	Mar-03	NA	41.07	41.35	26.36	FP only	33.18	32.81	33.22	32.44	32.49	33.07	39.77	40.95	41.53	32.01	38.28	38.36	33.42	39.06	40.36											
	Jun-03	NA	39.98	39.85	26.35	FP only	30.44	30.85	31.1	30.41	30.15	31.05	37.05	39.2	39.62	29.99	36.41	33.13	38.3	37.05	38.5	36.8	34.23	37.73	39.22	36.7						
	Sep-03	NA	NA	NA	26.41	FP only	NA	32.34	34.29	31.68	31.84	33.26	42.16	43.79	44.19	33.48	40.65	38.37	33.29	41.57	42.68	38.87	39.55	42.69	44.35	38.45						
	Dec-03	NA	NA	NA	26.39	FP only	NA	34.55	36.96	33.71	33.73	34.3	45.12	46.72	46.84	36.85	43.47	42.73	38.85	44.53	45.44	Dry	42.65	45.69	47.35	39.8						
	Mar-04	NA	NA	NA	26.41	FP only	NA	35.2	38.19	34.85	34.36	35.02	45.98	47.41	47.92	36.86	44.56	40.28	37.15	45.22	46.59	38.51	43.25	46.44	48.03	36.7						
	Jun-04	NA	NA	NA	26.4	FP only	NA	35.42	39.15	35.08	35.38	35.2	46.61	48.31	48.49	38.38	45.15	45.74	37.23	46.29	47.48	39.92	44.24	47.32	48.95	39.25						
	Sep-04	NA	NA	NA	26.42	FP only	NA	36.18	41.05	36.53	35.92	35.82	49.27	51.06	51.32	40.1	48.21	FP only	36.34	48.92	50.09	Dry	48.98	48.83	51.82	NA						
	Dec-04	NA	NA	NA	26.47	28.8	NA	36.02	41.69	35.63	36.26	36.32	51.18	52.71	53.18	40.34	49.57	40.5	37.23	50.59	51.62	Dry	48.54	51.35	53.22	39.52						
VOCs																																
Acetone	Oct-01	<1,250	<250	<625	NS-NW	Table 2	1,190																									
	Feb-02	<625	<62.5	3,150	NS-FP	NS-FP	746																									
	Jun-02	<1,250	<2,500	<625	NS-FP	NS-FP	<125	NS-FP	<500																							
	Oct-02	<2,500	<250	<250	NS-FP	NS-FP	<1,250	NS-FP	<125																							
	Dec-02	NA	<1,250	<1,250	NS-FP	NS-FP	<625	NS-FP	<125	29,900	662	<125	<25	<625	<250	<1,250	<25	26,000	70,000	<25	<25	<125										
	Mar-03	NA	<5,000	<2,500	NS-FP	NS-FP	<625	NS-FP	<125	25,900	8,760	<250	<25	<625	<250	<625	<25	38,700	70,200	<25	<25	<125										
	Jun-03	NA	<500	<1,000	NS-FP	NS-FP	<125	NS-FP	<50	46,400	13,600	<125	<25	<25	<62.5	<125	<25	62,700	105,000	<25	<5	<250	<25	<25	<25	<34,100						
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	<50	73,000	6,950	<12.5	<5	<5	<10	<125	<5	44,200	NS-FP	<5	<25	NS-NW	<5	<5	<5	24,500						
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<5	19,200	2,240	<12.5	<5	<10	<12.5	NS-FP	<5	32,400	NS-FP	<5	<10	NS-NW	Table 5	Table 5	Table 5	NS-NW						
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<50	Table 2	33,000	<12.5	<5	<5	<5	NS-FP	<5	Table 2	Table 2	<5	<12.5	<10	Table 5	Table 5	Table 5	10,200						
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	888	<10	<5	<5	<5	NS-FP	<5	NS-FP	<5	<10	NS-NW	<5	<5	<5	7,220							
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<25	NS-FP	566	<10	<5	<5	<5	NS-FP	<5	NS-FP	<5	<10	NS-NW	<5	<5	<5	NA							
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<25	NS-FP	<500	<5	<5	<10	<5	NS-FP	<5	NS-FP	<5	<5	NS-FP	NS-NW	<5	<5	<5	NS-NW						
Benzene	Feb-04	184	<100	63	111	795	46																									
	Nov-00	<2,500	61	73	NS-FP	NS-FP	65																									
	Oct-01	125	105	110	NS-NW	Table 2	55																									
	Feb-02	231	204	108	NS-FP	NS-FP	63.2																									
	Jun-02	300	222	125	NS-FP	NS-FP	<5	NS-FP	90.8																							
	Oct-02	245	177	99.2	NS-FP	NS-FP	121	NS-FP	893																							
	Dec-02	NA	180	137	NS-FP	NS-FP	<25	NS-FP	85.2	<500	431	19.5	1	<25	<10	78	<1	610	1,160	<1	7.9											
	Mar-03	NA	172	127	NS-FP	NS-FP	62.6	NS-FP	54	302	974	13.3	<1	<25	<10	82.5	<1	<500	1,100	<1	9											
	Jun-03	NA	<100	<200	NS-FP	NS-FP	61	NS-FP	64.4	250	520	<5	<1	<1	5.7	97.5	<1	392	1,390	<2.5	18	13.5	<1	<1	<1	125						
	Sep-03	NA	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	75	340	775	5.5	<1	5.5	5.6	72	<1	380	NS-FP	<1	53	NS-NW	<1	<1	<1	270					
	Dec-03	NA	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	2.1	292	768	9.1	<1	14.6	12.9	NS-FP	<1	415	NS-FP	1.3	64	NS-NW	Table 5	Table 5	Table 5	NS-NW					
	Mar-04	NA	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	29.3	Table 2	935	7.5	<1	4.5	36.1	NS-FP	<1	Table 2	Table 2	<1	92.7	34	Table 5	Table 5	Table 5	225					
	Jun-04	NA	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	26.8	NS-FP	715	2.2	<1	1.9	3.4	NS-FP	<1	NS-FP	NS-FP	<1	5	NS-NW	<1	<1	<1	142					
	Sep-04	NA	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	23.9	NS-FP	709	0.6	<1	3.2	14.6	NS-FP	<1	NS-FP	NS-FP	<1	116	NS-NW	<1	<1	<1	NA					
	Dec-04	NA	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	17	NS-FP	1,040	<1	<1	<2	1.8	NS-FP	<1	NS-FP	NS-FP	<1	NS-FP	NS-FP	<1	NS-FP	NS-FP	<1	<1	<1	NS-NW		

Table 4 (cont.): Detected VOCs from Groundwater Sample Results using EPA Method 8260 ( $\mu\text{g/L}$ )

VOCs	Date	MW-1'	MW-2'	MW-3'	MW-4	MW-5'	MW-6	MW-7'	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24	MW-25	MW-26		
2-Butanone (MEK)	Feb-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	Nov-00	3,100	<10,000	<10,000	NS-FP	NS-FP	NS-FP	1,400																					
	Oct-01	<1,250	<250	500	NS-NW	Table 2	980																						
	Feb-02	<625	<625	<500	NS-FP	NS-FP	<50																						
	Jun-02	<1,250	<250	625	NS-FP	NS-FP	<125	NS-FP	<500																				
	Oct-02	<2,500	<250	<250	NS-FP	NS-FP	<1,250	NS-FP	<125																				
	Dec-02	NA	<1,250	<1,250	NS-FP	NS-FP	<625	NS-FP	<125	15,300	1,160	<125	<25	<25	<250	<1,250	<25	9,300	18,800	<25	<125								
	Mar-03	NA	<5,000	<2,500	NS-FP	NS-FP	<625	NS-FP	<125	21,100	15,600	<250	<25	<25	<250	<625	<25	23,900	28,800	<25	<125								
	Jun-03	NA	<500	<1,000	NS-FP	NS-FP	<125	NS-FP	<50	20,200	5,660	<125	<25	<25	<25	<625	<125	28,800	43,800	<25	<5	<250	<25	<25	<25	11,300			
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	<5	58,000	5,580	<12.5	<5	<5	<10	<25	<5	32,000	NS-FP	<5	<25	NS-NW	<5	<5	<5	11,000			
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<5	4,080	<1,000	<12.5	<5	<10	<12.5	NS-FP	<5	23,700	NS-FP	<5	<100	NS-NW	Table 5	Table 5	Table 5	NS-NW			
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<50	Table 2	13,600	<12.5	<5	<5	<5	NS-FP	<5	Table 2	Table 2	<5	<12.5	<10	Table 5	Table 5	Table 5	Table 5	6,050		
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	<250	<10	<5	<5	<5	NS-FP	<5	NS-FP	NS-FP	<5	<10	NS-NW	<5	<5	<5	2,260			
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<25	NS-FP	<125	<10	<5	<5	<5	NS-FP	<5	NS-FP	NS-FP	<5	<10	NS-NW	<5	<5	<5	NA			
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<25	NS-FP	<500	<5	<5	<10	<5	NS-FP	<5	NS-FP	NS-FP	<5	NS-FP	NS-NW	<5 SW	<5 SW	<5 SW	NS-NW			
Chloroethane	Feb-02	<125	118	<100	NS-FP	NS-FP	17																						
	Jun-02	<250	<500	<125	NS-FP	NS-FP	<25	NS-FP	<100																				
	Oct-02	<500	<50	<50	NS-FP	NS-FP	<250	NS-FP	<25																				
	Dec-02	NA	<250	<250	NS-FP	NS-FP	<125	NS-FP	<25	<2,500	<125	<25	<5	<125	<50	<250	<5	<500	<2,500	<5	<25								
	Mar-03	NA	<1,000	<500	NS-FP	NS-FP	248	NS-FP	<25	<1,000	989	<50	<5	<125	<50	<125	<5	<2,500	<2,500	<5	<25								
	Jun-03	NA	4,500	11,500	NS-FP	NS-FP	311	NS-FP	<20	5,000	760	<10	<2	<2	<5	<50	<2	1,970	2,860	<5	<2	<20	<2	<2	<2	<100			
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	<20	840	1,700	<5	<2	<2	<4	<5	<50	<2	480	NS-FP	<2	<10	NS-NW	<2	<2	<2	<100		
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<2	826	1,550	<5	<2	<4	<4	<5	NS-FP	<2	<200	NS-FP	<2	<40	NS-NW	Table 5	Table 5	Table 5	NS-NW		
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<20	Table 2	4,670	<5	<2	<2	<4	49.4	NS-FP	<2	Table 2	Table 2	<2	<5	104	Table 5	Table 5	Table 5	2,000		
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<4	NS-FP	3,960	<4	<2	<2	<2	NS-FP	<2	NS-FP	NS-FP	<2	<4	NS-NW	<2	<2	<2	<40			
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	3,080	<4	<2	<2	<2	NS-FP	<2	NS-FP	NS-FP	<2	<4	NS-NW	<2	<2	<2	NA			
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	3,400	<2	<2	<4	<2	NS-FP	<2	NS-FP	NS-FP	<2	NS-FP	NS-NW	<2 SW	<2 SW	<2 SW	NS-NW			
1,1-Dichloroethane	Feb-94	649	1,130	85	1410	2,200	2,130																						
	Nov-00	17,800	1,800	800	NS-FP	NS-FP	2,800																						
	Oct-01	6,190	1,500	1,030	NS-NW	Table 2	2,670																						
	Feb-02	20,800	2,310	1,350	NS-FP	NS-FP	5,490																						
	Jun-02	18,900	2,700	1,340	NS-FP	NS-FP	4,150	NS-FP	1,210																				
	Oct-02	10,400	2,550	1,130	NS-FP	NS-FP	5,680	NS-FP	1,390																				
	Dec-02	NA	1,190	NS-FP	NS-FP	3,530	NS-FP	1,190	42,400	19,400	3,930	17.3	171	79.8	3,930	13	4,380	5,150	16.2	141									
	Mar-03	NA	2,180	1,710	NS-FP	NS-FP	3,750	NS-FP	1,020	41,900	48,800	1,800	6.4	150	117	3,130	2.5	6,700	5,110	16	276								
	Jun-03	NA	1,140	1,020	NS-FP	NS-FP	3,470	NS-FP	1,480	51,700	37,800	354	11.5	<2	107	3,330	<2	9,820	6,840	47.6	535	1,200	<2	<2	<2	931			
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	1,950	47,400	43,000	505	<2	101	88	4,450	<2	7,040	NS-FP	28.5	1,370	NS-NW	3.1	<2	5	1,670			
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	50	53,500	49,200	735	2.3	219	262	NS-FP	<2	5,440	NS-FP	123	2,300	NS-NW	Table 5	Table 5	Table 5	NS-NW			
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	985	Table 2	52,700	485	2.5	110	672	NS-FP	<1	Table 2	Table 2	69.2	2,240	1,900	Table 5	Table 5	Table 5	3,620			
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	910	NS-FP	55,000	300	8.8	45.9	53.6	NS-FP	4.3	NS-FP	NS-FP	12.8	203	NS-NW	<1	<1	<1	1,750			
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	628	NS-FP	29,400	160	2.6	151	166	NS-FP	<1	NS-FP	NS-FP	2.5	2760	NS-NW	2.9	52.1	<1	NA			
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	498	NS-FP	85,300	156	17.4	101	101	NS-FP	<1	NS-FP	NS-FP	1.9	NS-FP	NS-NW	<1 SW	<1 SW	<1 SW	NS-NW			

Table 4 (cont.): Detected VOCs from Groundwater Sample Results using EPA Method 8260 ( $\mu\text{g/L}$ )

VOCs	Date	MW-1 <sup>t</sup>	MW-2 <sup>t</sup>	MW-3 <sup>t</sup>	MW-4 <sup>t</sup>	MW-5 <sup>t</sup>	MW-6 <sup>t</sup>	MW-7 <sup>t</sup>	MW-8 <sup>t</sup>	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24	MW-25	MW-26						
1,2-Dichloroethane	Feb-94	<100	<100	<50	<100	1140	31																									
	Nov-00	<2,500	<500	<500	NS-FP	NS-FP	<500																									
	Oct-01	<250	<50	<125	NS-NW	Table 2	<25																									
	Feb-02	<125	<12.5	<100	NS-FP	NS-FP	43.4																									
	Jun-02	<250	<500	<125	NS-FP	NS-FP	<25	NS-FP	<100																							
	Oct-02	<500	<50	<50	NS-FP	NS-FP	<250	NS-FP	<25																							
	Dec-02	NA	<250	<250	NS-FP	NS-FP	<125	NS-FP	<25	<2,500	<125	<25	<5	<125	<50	28	<5	<500	<2,500	<5	<25											
	Mar-03	NA	<1,000	<500	NS-FP	NS-FP	<125	NS-FP	11.5	<1,000	226	<50	<5	<125	<50	57.5	<5	<2,500	<2,500	<5	<25											
	Jun-03	NA	<200	<400	NS-FP	NS-FP	<50	NS-FP	<20	<400	<10	<2	<2	<5	<50	<2	<400	<1,000	<5	<2	<20	<2	<2	<2	<100							
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	<20	<400	103	<5	<2	<2	<4	<50	<2	<200	NS-FP	<2	<10	NS-NW	<2	<2	<2	<100						
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<2	<400	<5	<2	<2	<5	<5	NS-FP	<2	<200	NS-FP	<2	<40	NS-NW	Table 5	Table 5	Table 5	Table 5	NS-NW					
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<20	Table 2	130	<5	<2	<5	2.1	NS-FP	<2	Table 2	Table 2	<2	17.5	11.7	Table 6	Table 5	Table 5	<100						
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	4.6	NS-FP	45	<4	<2	<2	NS-FP	<2	NS-FP	NS-FP	<2	1.8	NS-NW	<2	<2	<2	<40							
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	<50	<4	<2	<6	<2	NS-FP	<2	NS-FP	NS-FP	<2	18.3	NS-NW	<2	<2	<2	NA						
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	<200	<2	<2	<4	<2	NS-FP	<2	NS-FP	NS-FP	<2	NS-FP	NS-NW	6.1 <sup>SM</sup>	13.8 <sup>SM</sup>	2.4 <sup>SM</sup>	NS-NW						
1,1-Dichloroethene	Feb-94	2,210	2,480	2,800	806	1,240	151																									
	Nov-00	3,000	<500	2,900	NS-FP	NS-FP	350																									
	Oct-01	1,200	1,120	4,090	NS-NW	Table 2	355																									
	Feb-02	4,050	1,480	3,800	NS-FP	NS-FP	778																									
	Jun-02	4,900	2,000	2,800	NS-FP	NS-FP	423	NS-FP	1,540																							
	Oct-02	3,800	2,100	176	NS-FP	NS-FP	547	NS-FP	1,620																							
	Dec-02	NA	2,230	196	NS-FP	NS-FP	538	NS-FP	1,480	2,640	3,460	154	38.5	142	52.4	1,530	18.6	6,850	17,700	25.6	207											
	Mar-03	NA	2,490	1,410	NS-FP	NS-FP	213	NS-FP	1,100	2,550	2,940	16.5	16.8	<125	60.8	2,470	17.1	5,290	18,600	16.5	280											
	Jun-03	NA	1,490	2,370	NS-FP	NS-FP	364	NS-FP	1,290	3,370	1,480	29.2	44.2	29.6	124	3,500	16	4,610	24,200	246	755	155	2	<2	4.2	2,340						
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	1,620	1,780	1,050	14.5	27.2	27.4	98	2,470	14.2	4,260	NS-FP	45.7	1,800	NS-NW	<2	<2	<2	5,600						
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	43.5	2,750	1,610	7.3	10.8	876	234	NS-FP	7.8	4,170	NS-FP	43.6	1,980	NS-NW	Table 5	Table 5	Table 5	Table 5	NS-NW					
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	1,260	Table 2	520	7.3	6.7	264	725	NS-FP	3.8	Table 2	Table 2	21	2,540	440	Table 5	Table 5	Table 5	Table 5	7,740					
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	1,100	NS-FP	435	4.5	30.7	96.9	40.5	NS-FP	24.7	NS-FP	NS-FP	78.1	299	NS-NW	9.7	15.6	7.8	8,150						
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	909	NS-FP	434	4.5	13.9	346	198	NS-FP	2.9	NS-FP	NS-FP	10.5	2,730	NS-NW	0.7	1.7	<2	NA						
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	731	NS-FP	360	1.8	22.7	185	70.2	NS-FP	5.5	NS-FP	NS-FP	14.8	NS-FP	NS-NW	3.2 <sup>SM</sup>	8.6 <sup>SM</sup>	9.0 <sup>SM</sup>	NS-NW						
cis 1,2-Dichloroethene	Feb-94	NA	NA	NA	NA	NA	NA																									
	Nov-00	20,000	8,500	5,700	NS-FP	NS-FP	210																									
	Oct-01	10,300	8,150	7,000	NS-NW	Table 2	194																									
	Feb-02	29,100	11,100	7,960	NS-FP	NS-FP	268																									
	Jun-02	31,100	14,800	6,860	NS-FP	NS-FP	238	NS-FP	612																							
	Oct-02	26,700	19,400	212	NS-FP	NS-FP	311	NS-FP	736																							
	Dec-02	NA	11,800	595	NS-FP	NS-FP	268	NS-FP	630	23,300	6,700	180	46.5	664	332	875	36	18,100	11,800	9.3	324											
	Mar-03	NA	11,300	3,090	NS-FP	NS-FP	226	NS-FP	463	20,900	10,100	18.5	17.6	363	498	1,150	7.1	21,200	11,100	6.9	543											
	Jun-03	NA	2,270	5,220	NS-FP	NS-FP	214	NS-FP	552	24,600	8,740	24.8	40	5.6	617	1,540	2.2	23,900	13,000	7	1,060	3,860	<2	<2	<2	1,939						
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	648	9,290	6,950	6	25.2	49	436	1,988	<2	15,900	NS-FP	4.6	2,450	NS-NW	8.7	<2	24	1,210						
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	21.3	17,200	1,830	5.1	10.8	113	1,570	NS-FP	<2	14,500	NS-FP	26.7	4,400	NS-NW	Table 5	Table 5	Table 5	Table 5	NS-NW					
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	391	Table 2	5,850	3.8	11.2	68.8	2,890	NS-FP	2.2	Table 2	Table 2	18.8	4,090	6,020	Table 5	Table 5	Table 5	Table 5	5,130					
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	370	NS-FP	4,150	<4	35	36.9	102	NS-FP	8.7	NS-FP	NS-FP	4	437	NS-FP	2.8	16.2	<8	6,550						
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	327	NS-FP	3,730	1.6	16.7	110	790	NS-FP	1.5	NS-FP	NS-FP	3.7	5,370	NS-NW	8	4.6	<2	NA						
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	315	NS-FP	13,600	2	31.7	79.2	72.2	NS-FP	10.1	NS-FP	NS-FP	5.5	NS-FP	NS-NW	4.5 <sup>SM</sup>	5.9 <sup>SM</sup>	2.2 <sup>SM</sup>	NS-NW						

Table 4 (cont.): Detected VOCs from Groundwater Sample Results using EPA Method 8260 ( $\mu\text{g/L}$ )

VOCs	Date	MW-1	MW-2*	MW-3*	MW-4	MW-5	MW-7*	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24	MW-25	MW-26				
trans 1,2-Dichloroethene	Feb-94	NA	NA	NA	NA	NA	NA	NA																						
	Nov-00	<2,500	<500	<500	NS-FP	NS-FP	<500																							
	Oct-01	<250	<50	<125	NS-NW	Table 2	<25																							
	Feb-02	<125	<12.5	<100	NS-FP	NS-FP	<10																							
	Jun-02	<250	<500	<125	NS-FP	NS-FP	<25	NS-FP	<100																					
	Oct-02	<500	<50	<50	NS-FP	NS-FP	<250	NS-FP	<25																					
	Dec-02	NA	<250	<250	NS-FP	NS-FP	<125	NS-FP	<25	<2,500	<125	<25	<5	<125	<50	<250	<5	<500	<2,500	<5	<25									
	Mar-03	NA	<1,000	<500	NS-FP	NS-FP	<125	NS-FP	<25	<1,000	<500	<50	<5	<125	<50	<25	<5	<2,500	<2,500	<5	<25									
	Jun-03	NA	<200	<400	NS-FP	NS-FP	<50	NS-FP	<20	<400	<400	<10	<2	<2	<5	<50	<2	<400	<1,000	<5	<2	<2	<2	<2	<100					
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	<20	<400	<50	<5	<2	<2	<4	<50	<2	<200	NS-FP	<2	12	NS-NW	<2	<2	<2	<120				
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<2	<400	<400	5	<2	<4	<5	NS-FP	<2	<200	NS-FP	<2	<40	NS-NW	Table 5	Table 5	NS-NW					
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<20	Table 2	<100	<5	<2	<2	29.4	NS-FP	<2	Table 2	Table 2	<2	14.5	32.3	Table 5	Table 5	<100					
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<4	NS-FP	<100	<4	<2	<2	<2	NS-FP	<2	NS-FP	NS-FP	<2	2	NS-NW	<2	<2	<2	<40				
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	<50	<4	<2	<2	<2	NS-FP	<2	NS-FP	NS-FP	<2	24	NS-NW	<2	<2	<2	NA				
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	<200	<2	<2	<4	<2	NS-FP	<2	NS-FP	NS-NW	<2	<2	<2	<2	NS-NW						
1,4 Dioxane	Oct-02				NS-FP	NS-FP		NS-FP																						
	Dec-02	NA	<5,000	<5,000	NS-FP	NS-FP	11,500	NS-FP	6,540	<50,000	<2,500	<500	<100	<2,500	<1,000	16,500	<100	<10,000	<50,000	176	<500									
* = Analyzed using EPA Method 8270)	Mar-03	NA	<10,000	<5,000	NS-FP	NS-FP	21,900	NS-FP	7,200	<10,000	<5,000	<250	28	<825	<250	6,850	<25	<25,000	<25,000	112	<125									
	Jun-03	NA	<5,000	<10,000	NS-FP	NS-FP	22,300	NS-FP	12,800	<10,000	<10,000	<250	<50	<50	<125	12,000	<50	<10,000	<25,000	<125	<50	<500	<50	<50	<2,500					
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	7,150	<10,000	<1,250	<125	<50	<100	<1,250	<50	<5,000	NS-FP	88	<250	NS-NW	<50	<50	<50	<2,500					
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<50	<10,000	<10,000	<125	<50	<100	<125	NS-FP	<50	<5,000	NS-FP	<50	<1,000	NS-NW	Table 5	Table 5	NS-NW					
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<500	Table 2	546*	<125	<50	38.8*	54.4*	NS-FP	<50	Table 2	Table 2	<50	314*	B36*	Table 5	Table 5	816*					
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	4,000*	NS-FP	416*	2.8*	<2*	93*	6.4*	NS-FP	<2*	NS-FP	NS-FP	5.3*	28*	NS-NW	NA	NA	NA	NA	NA			
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	1,310*	NS-FP	304*	<2*	<2*	276*	90*	NS-FP	<2*	NS-FP	NS-FP	<2*	676*	NS-NW	<200	<200	<200	<200	NA			
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	468*	NS-FP	<2*	<2*	<2*	51*	42*	NS-FP	<2*	NS-FP	NS-FP	<2*	NS-FP	NS-NW	NA	NA	NA	NA	NS-NW			
Ethylbenzene	Feb-94	333	1,720	115	1,180	1,910	45																							
	Nov-00	960	120	1,000	NS-FP	NS-FP	82																							
	Oct-01	805	197	1,550	NS-NW	Table 2	107																							
	Feb-02	875	115	1,360	NS-FP	NS-FP	94.4																							
	Jun-02	1,450	147	1,470	NS-FP	NS-FP	124	NS-FP	<1																					
	Oct-02	884	469	945	NS-FP	NS-FP	213	NS-FP	<1																					
	Dec-02	NA	590	1,150	NS-FP	NS-FP	60	NS-FP	<5	1,480	967	270	<1	334	<10	<50	<1	426	1,710	<1	<5									
	Mar-03	NA	814	982	NS-FP	NS-FP	190	NS-FP	<5	1,280	1,550	200	<1	25.3	<10	<25	<1	1,050	2,270	<1	<5									
	Jun-03	NA	<100	722	NS-FP	NS-FP	85.3	NS-FP	<10	1,400	940	11.1	<1	<1	<2.5	<25	<1	1,010	2,480	<2.5	31	<10	<1	<1	<1	1,620				
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	<10	1,350	1,010	52.6	2	<1	<2	<25	<1	740	NS-FP	<1	5.5	NS-NW	<1	<1	<1	2,900				
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<1	1,450	1,140	157	<1	<2	<2.5	NS-FP	<1	680	NS-FP	<1	<1	NS-NW	Table 5	Table 5	NS-NW					
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	Table 2	1,080	254	<1	<1	6.7	NS-FP	<1	Table 2	Table 2	<1	6.8	<2	Table 5	Table 5	Table 5	3,180				
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<2	NS-FP	833	74.4	<1	<1	2.5	NS-FP	<1	NS-FP	NS-FP	<1	<2	NS-NW	<1	<1	<1	2,830				
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<5	NS-FP	1,160	160	<1	<1	4.7	NS-FP	<1	NS-FP	NS-FP	<1	9.4	NS-NW	<1	<1	<1	NA				
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<5	NS-FP	1,350	84.8	<1	<2	<1	NS-FP	<1	NS-FP	NS-FP	<1	NS-FP	NS-NW	<1	<5	<5	NS-NW				

Table 4 (cont.): Detected VOCs from Groundwater Sample Results using EPA Method 8260 ( $\mu\text{g/L}$ )

VOCs	Date	MW-1 <sup>†</sup>	MW-2 <sup>‡</sup>	MW-3 <sup>§</sup>	MW-4 <sup>¶</sup>	MW-5 <sup>  </sup>	MW-7 <sup>†</sup>	MW-8	MW-9	MW-10	MW-11 <sup>†</sup>	MW-12 <sup>†</sup>	MW-13 <sup>†</sup>	MW-14 <sup>†</sup>	MW-15 <sup>†</sup>	MW-16 <sup>†</sup>	MW-17 <sup>†</sup>	MW-18 <sup>†</sup>	MW-20 <sup>†</sup>	MW-21 <sup>†</sup>	MW-22 <sup>†</sup>	MW-24 <sup>†</sup>	MW-25 <sup>†</sup>	MW-26 <sup>†</sup>			
Methylene Chloride	Feb-84	1,220	2,980	6,530	4,760	21,400	<50																				
	Nov-90	1,100	180	5,800	NS-FP	NS-FP	180																				
	Oct-01	<1,250	<250	NS-NW	Table 2	<125																					
	Feb-02	<250	18.5	3,960	NS-FP	NS-FP	<20																				
	Jun-02	<250	<50	<125	NS-FP	NS-FP	<25	NS-FP	<100																		
	Oct-02	<500	<50	<50	NS-FP	NS-FP	<250	NS-FP	<25																		
	Dec-02	NA	<250	<250	NS-FP	NS-FP	<125	NS-FP	<25	<2,500	<125	<25	<5	<125	<50	<250	<5	<500	<2,500	<5	<25						
	Mar-03	NA	<1,000	1,630	NS-FP	NS-FP	<125	NS-FP	<25	<1,000	<500	<50	<5	<125	<50	<125	<5	<2,500	12,500	<5	<25						
	Jun-03	NA	<200	<400	NS-FP	NS-FP	<50	NS-FP	<20	<400	<400	<10	<2	<5	<50	<2	<400	12,800	<5	<2	113	<2	<2	<2	10,600		
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	<20	<400	<50	<5	<2	<4	<50	<2	<200	NS-FP	<2	<10	NS-NW	<2	<2	<2	14,600		
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<2	<400	<400	<5	<2	<4	<5	NS-FP	<2	<200	NS-FP	<2	<40	NS-NW	Table 5	Table 5	NS-NW		
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<20	Table 2	<100	<5	<2	<2	<2	NS-FP	<2	Table 2	Table 2	<2	<10	6.6	Table 5	Table 5	8,300		
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<4	NS-FP	<100	<4	<2	<2	<2	NS-FP	<2	NS-FP	NS-FP	<2	<4	NS-NW	<2	<2	<2	11,900	
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	<50	<4	<2	<2	<2	NS-FP	<2	NS-FP	NS-FP	<2	<4	NS-NW	<2	<2	<2	NA	
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	<200	<2	<2	<4	<2	NS-FP	<2	NS-FP	NS-FP	<2	NS-FP	NS-NW	<2 <sup>SM</sup>	<2 <sup>SM</sup>	<2 <sup>SM</sup>	NS-NW	
4-Methyl-2-pentanone (MIBK)	Oct-01	<1,250	<250	4,130	NS-NW	Table 2	625																				
	Feb-02	<625	<62.5	3,470	NS-FP	NS-FP	376																				
	Jun-02	<1,250	<250	2,850	NS-FP	NS-FP	388	NS-FP	<500																		
	Oct-02	<2,500	<250	1,410	NS-FP	NS-FP	276	NS-FP	<125																		
	Dec-02	NA	<1,250	<1,250	NS-FP	NS-FP	<825	NS-FP	<125	<12,500	3,540	<125	<25	<625	<250	<1,250	<25	<2,500	<12,500	<25	<125						
	Mar-03	NA	<6,000	<2,500	NS-FP	NS-FP	<825	NS-FP	<125	8,160	3,880	<250	<25	<625	<250	<25	7,400	10,100	<25	<125							
	Jun-03	NA	<500	<1,000	NS-FP	NS-FP	<125	NS-FP	<50	6,020	5,340	<125	<25	<62.5	<125	<25	12,600	14,400	<62.5	<5	<250	<25	<25	<25	9,250		
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	<50	10,900	1,370	<12.5	<5	<5	<10	<125	<5	4,100	NS-FP	<5	<25	NS-NW	<5	<5	<5	7,350	
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<5	3,120	<1,000	<12.5	<5	<10	<12.5	NS-FP	<5	1,330	NS-FP	<5	<100	NS-NW	Table 5	Table 5	NS-NW		
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<50	Table 2	<250	<12.5	<5	<5	<5	NS-FP	<5	Table 2	Table 2	<5	<12.5	<10	Table 5	Table 5	6,600		
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	<250	<10	<5	<5	<5	NS-FP	<5	NS-FP	NS-FP	<5	<10	NS-NW	<5	<5	<5	5,320	
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<25	NS-FP	<125	<10	<5	<5	<5	NS-FP	<5	NS-FP	NS-FP	<5	<10	NS-NW	<5	<5	<5	NA	
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<25	NS-FP	<500	<5	<5	<10	<5	NS-FP	<5	NS-FP	NS-FP	<5	<5 <sup>SM</sup>	<5 <sup>SM</sup>	<5 <sup>SM</sup>	NS-NW			
Naphthalene	Oct-01	185	78	<125	NS-NW	Table 2	85																				
	Feb-02	195	64	122	NS-FP	NS-FP	74.8																				
	Jun-02	<250	89.4	178	NS-FP	NS-FP	116	NS-FP	<100																		
	Oct-02	<500	62.2	59.2	NS-FP	NS-FP	<250	NS-FP	<25																		
	Dec-02	NA	<250	<250	NS-FP	NS-FP	<125	NS-FP	<25	<2,500	<125	97	<5	<125	<50	<250	<5	<500	<2,500	<5	<25						
	Mar-03	NA	<1,000	206	NS-FP	NS-FP	110	NS-FP	<25	568	222	134	89.4	<125	27.5	55.3	116	1,130	1,810	<5	<25						
	Jun-03	NA	<200	<400	NS-FP	NS-FP	80.3	NS-FP	<20	450	<400	<10	<2	<2	<5	<50	<2	276	3,250	<5	<2	<20	<2	<2	<2	135	
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	<20	4400	<50	22	<2	<2	<4	<50	<2	<200	NS-FP	<2	<10	NS-NW	<2	<2	<2	125	
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<20	4400	<400	113	<2	<4	<5	NS-FP	<2	<200	NS-FP	<2	<20	NS-NW	Table 5	Table 5	NS-NW		
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<20	Table 2	<100	153	<2	<2	<2	NS-FP	<2	Table 2	Table 2	<2	53.5	6.6	Table 5	Table 5	<100		
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<4	NS-FP	<100	129	<2	<2	<2	NS-FP	<2	NS-FP	NS-FP	<2	<4	NS-NW	<2	<2	<2	102	
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	<50	157	<2	<2	<2	NS-FP	<2	NS-FP	NS-FP	<2	70	NS-NW	<2	<2	<2	NA	
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	<500	88.9	<2	<4	<2	NS-FP	2.4	NS-FP	NS-FP	<2	NS-FP	NS-NW	<2 <sup>SM</sup>	<2 <sup>SM</sup>	<2 <sup>SM</sup>	NS-NW	

Table 4 (cont.): Detected VOCs from Groundwater Sample Results using EPA Method 8260 ( $\mu\text{g/L}$ )

VOCs	Date	MW-1 <sup>a</sup>	MW-2 <sup>a</sup>	MW-3 <sup>a</sup>	MW-4 <sup>a</sup>	MW-5 <sup>a</sup>	MW-7 <sup>a</sup>	MW-8 <sup>a</sup>	MW-9 <sup>a</sup>	MW-10 <sup>a</sup>	MW-11 <sup>a</sup>	MW-12 <sup>a</sup>	MW-13 <sup>a</sup>	MW-14 <sup>a</sup>	MW-15 <sup>a</sup>	MW-16 <sup>a</sup>	MW-17 <sup>a</sup>	MW-18 <sup>a</sup>	MW-19 <sup>a</sup>	MW-20 <sup>a</sup>	MW-21 <sup>a</sup>	MW-22 <sup>a</sup>	MW-23 <sup>a</sup>	MW-24 <sup>a</sup>	MW-25 <sup>a</sup>	MW-26 <sup>a</sup>		
n-Propylbenzene	Jun-02	<250	28.5	<125	NS-FP	NS-FP	<25	NS-FP	<100																			
	Oct-02	<500	44.2	<50	NS-FP	NS-FP	<25	NS-FP	<25	<2,500	259	89.5	<5	<125	<50	<250	<5	<500	<2,500	<5	<25							
	Dec-02	NA	<250	<250	NS-FP	NS-FP	<125	NS-FP	<25	<2,500	482	191	<5	<125	<50	<125	<5	<2,500	<2,500	<5	<25							
	Mar-03	NA	<1,000	<500	NS-FP	NS-FP	<125	NS-FP	<25	<1,000	303	45	<2	<2	<50	<2	<400	<1,000	<5	<2	<20	<2	<2	<2	<100			
	Jun-03	NA	<200	<400	NS-FP	NS-FP	<50	NS-FP	<20	<400	123	<2	<4	<50	<2	<200	NS-FP	<2	10.5	NS-NW	<2	<2	<2	<100				
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	<20	<400	355	237	<2	<2	<2	<2	NS-FP	<2	230	NS-FP	223	<40	NS-NW	Table 5	Table 5	Table 5	NS-NW	
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<20	<400	210	142	<2	<2	<2	<2	NS-FP	<2	13.4	NS-FP	<2	<2	<2	<2	NA			
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	327	128	<2	<2	<2	<2	NS-FP	<2	NS-FP	<2	NS-FP	NS-NW	<2 <sup>SM</sup>	<2 <sup>SM</sup>	<2 <sup>SM</sup>	NS-NW		
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	122																	
Tetrachloroethylene	Feb-04	862	2,150	5,370	8,320	2,130	134																					
	Nov-00	<2,500	<500	130	NS-FP	NS-FP	<500																					
	Oct-01	<100	<20	130	NS-NW	Table 2	100																					
	Feb-02	20	3.3	302	NS-FP	NS-FP	8.2																					
	Jun-02	24.8	<500	133	NS-FP	NS-FP	<25	NS-FP	122																			
	Oct-02	<200	<20	39.3	NS-FP	NS-FP	<100	NS-FP	190	204	<1,000	<50	<10	97.1	<50	<20	268	6.1	534	1,240	9.7	53.1						
	Dec-02	NA	<100	<100	NS-FP	NS-FP	<50	NS-FP	135	<400	<200	<20	11	<50	<20	<350	25	<1,000	1,460	3.3	17.8							
	Mar-03	NA	<400	411	NS-FP	NS-FP	<50	NS-FP	132	<400	<400	<10	161	21.8	29.5	485	35.9	<400	1,460	46.9	<2	<20	4	4.1	12.3	1,820		
	Jun-03	NA	258	318	NS-FP	NS-FP	<50	NS-FP	131	<400	<50	12.5	145	28.3	36	273	15.1	<200	NS-FP	16.3	232	1NS-NW	4.1	10.7	51	2,930		
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	131	<400	<50	4.5	<400	<400	3.8	36.3	42.4	12.1	NS-FP	18	<200	NS-FP	3.4	13.3	1NS-NW	Table 5	Table 5	NS-NW
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	4.5	<400	<400	149	<100	3.8	51.4	42	63.2	1NS-FP	36.2	Table 2	9.3	347	<4	Table 5	Table 5	4,160		
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	126	NS-FP	<100	2.8	177	41.8	53.1	NS-FP	37.6	NS-FP	25	228	NS-NW	34.5	120	31.7	1,830			
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	123	NS-FP	<50	3	239	40.5	56.5	NS-FP	20.4	NS-FP	35.6	491	NS-NW	1.7	<2	3.6	NA			
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	57.0	NS-FP	<200	<2	58.8	18.2	38.2	81.1	NS-FP	NS-FP	27.1	NS-FP	NS-NW	52.1 <sup>SM</sup>	75.1 <sup>SM</sup>	88.1 <sup>SM</sup>	NS-NW			
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	92																			
1,1,1-Trichloroethane	Feb-04	9,370	3,470	444	36,200	114,000	80																					
	Nov-00	<2,500	<500	70	NS-FP	NS-FP	<500																					
	Oct-01	<250	<50	<125	NS-NW	Table 2	<25																					
	Feb-02	<125	<12.5	<100	NS-FP	NS-FP	<10																					
	Jun-02	<250	<500	<125	NS-FP	NS-FP	<25	NS-FP	<100																			
	Oct-02	<500	<50	<50	NS-FP	NS-FP	<250	NS-FP	92																			
	Dec-02	NA	<250	<250	NS-FP	NS-FP	<125	NS-FP	32.3	13,800	52.8	21	<5	230	<50	<250	6	1,150	21,500	<5	<25							
	Mar-03	NA	<1,000	<500	NS-FP	NS-FP	<125	NS-FP	35	12,300	<500	14	1.4	77.5	<50	33.5	9.5	665	37,800	<5	14							
	Jun-03	NA	160	<400	NS-FP	NS-FP	<50	NS-FP	18.6	8,430	<400	19	<2	3.4	10.7	42.5	<2	280	61,200	25	70	<20	<2	<2	<2	1,250		
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	<20	4,510	<50	8.7	<2	8.9	6.4	<50	8	420	NS-FP	8.6	150	1NS-NW	<2	<2	<2	1,790		
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<2	7,480	852	10.7	<2	<4	<5	NS-FP	2.2	1,130	NS-FP	81.7	132	1NS-NW	Table 5	Table 5	Table 5	NS-NW		
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	11.1	Table 2	170	8.3	<2	<2	7.7	NS-FP	<2	Table 2	Table 2	20.9	186	<4	Table 5	Table 5	Table 5	7,350		
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	24	NS-FP	250	2.5	<2	<2	4.5	NS-FP	7.4	NS-FP	NS-FP	3.4	13.5	NS-NW	3.4	<2	<2	5,730		
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	27.9	NS-FP	485	2.4	<2	<2	5.2	NS-FP	<2	NS-FP	NS-FP	3.2	312	1NS-NW	<2	<2	<2	NA		
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	27.8	NS-FP	290	<2	<2	<4	2.2	NS-FP	<2	NS-FP	NS-FP	<2	NS-FP	NS-NW	<2 <sup>SM</sup>	<2 <sup>SM</sup>	<2 <sup>SM</sup>	NS-NW		

Table 4 (cont.): Detected VOCs from Groundwater Sample Results using EPA Method 6260 ( $\mu\text{g/L}$ )

VOCs	Date	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24	MW-25	MW-26								
Trichloroethene	Feb-84	7,160	3,040	1,730	14,300	1,320	43																												
	Nov-90	<2,500	<500	1,500	NS-FP	NS-FP	<500																												
	Oct-01	<100	<20	100	NS-NW	Table 2	<10																												
	Feb-02	26	2.5	280	NS-FP	NS-FP	6.6																												
	Jun-02	<250	<500	134	NS-FP	NS-FP	<25	NS-FP	<100																										
	Oct-02	<200	<20	28	NS-FP	NS-FP	<100	NS-FP	56.6																										
	Dec-02	NA	<100	<100	NS-FP	NS-FP	<50	NS-FP	50.4	<1,000	<50	<10	77.2	<50	<20	274	3	946	1,740	2.9	55.7														
	Mar-03	NA	<400	1,830	NS-FP	NS-FP	<50	NS-FP	39	<400	<20	20	26.8	<50	134	400	7.4	610	2,360	1.5	31.7														
	Jun-03	NA	182	806	NS-FP	NS-FP	<50	NS-FP	41.9	<400	<400	<10	72.7	4	13.6	436	6.5	176	3,820	10	95	<20	2.3	2.3	20.4	1,330									
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	47	<400	<50	7.5	95.2	12.1	16	2,530	3.9	<200	NS-FP	6.2	180	NS-NW	<2	11.5	25	2,100									
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	1.7	<400	<400	<5	47	22.6	9.3	NS-FP	7.3	168	NS-FP	4.4	140	NS-NW	Table 5	Table 5	NS-NW										
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	37.2	Table 2	<100	<5	18.5	16.1	17.9	NS-FP	9.5	Table 2	Table 2	2.5	240	<4	Table 5	Table 5	Table 5	3,000									
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	29.6	<100	<4	52.7	<2	21.5	NS-FP	9.1	NS-FP	NS-FP	8.7	108	NS-NW	22.9	85.7	42.8	<40										
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	28.3	NS-FP	<50	<4	39.2	19.8	12.1	NS-FP	17.3	NS-FP	NS-FP	12.2	321	NS-NW	<2	<2	3.7	NA									
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	21.4	NS-FP	<200	<2	24.3	24.2	47	NS-FP	29.3	NS-FP	NS-FP	14.6	NS-FP	NS-NW	27.7	33.9	85.2	85.2	NS-NW								
1,2,4-Trimethylbenzene	Oct-01	1,590	18.9	345	NS-NW	Table 2	200																												
	Feb-02	2,800	231	668	NS-FP	NS-FP	234																												
	Jun-02	3,860	<500	618	NS-FP	NS-FP	238	NS-FP	<100																										
	Oct-02	2,120	116	299	NS-FP	NS-FP	327	NS-FP	<25																										
	Dec-02	NA	232	356	NS-FP	NS-FP	<125	NS-FP	<25	<2,500	2,120	1,840	<5	270	<50	<250	<5	1,080	2,500	<5	<25														
	Mar-03	NA	340	441	NS-FP	NS-FP	225	NS-FP	<25	1,590	2,950	703	<5	30	<50	238	238	2,490	4,660	<5	<25														
	Jun-03	NA	<200	378	NS-FP	NS-FP	152	NS-FP	<20	1,740	1,400	20	<2	<2	<5	<50	<2	2,070	8,090	<20	<2	<2	<2	<2	<2	<2	<2	<100							
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	<20	1,430	1,830	110	<2	<2	<4	<4	<4	<50	<2	1,880	NS-FP	<2	20.5	NS-NW	<2	<2	<2	555							
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<20	1,840	1,582	498	<2	<4	<5	NS-FP	<2	1,810	NS-FP	33.1	<40	NS-NW	Table 5	Table 5	NS-NW										
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<20	Table 2	2,060	1,200	<2	<2	15	NS-FP	<2	Table 2	Table 2	<2	30	6.6	Table 5	Table 5	1,140										
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<4	NS-FP	1,410	555	<2	<2	<2	NS-FP	<2	NS-FP	NS-FP	<2	2	NS-NW	<2	<2	<2	832									
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	925	768	<2	<2	3.1	NS-FP	<2	NS-FP	NS-FP	<2	151	NS-NW	<2	<2	<2	NA									
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	2,910	473	<2	<4	<2	NS-FP	<2	NS-FP	NS-FP	<2	NS-FP	NS-FP	<2	<2	<2	NS-NW	<2	<2	<2	NS-NW					
1,3,5-Trimethylbenzene	Oct-01	470	62.9	145	NS-NW	Table 2	25																												
	Feb-02	955	57.8	126	NS-FP	NS-FP	45.6																												
	Jun-02	1,170	67.5	<125	NS-FP	NS-FP	<25	NS-FP	<100																										
	Oct-02	574	67.8	57.8	NS-FP	NS-FP	<250	NS-FP	<25																										
	Dec-02	NA	<250	<250	NS-FP	NS-FP	<125	NS-FP	<25	<2,500	675	765	<5	106	<50	<250	<5	528	<2,500	<5	<25														
	Mar-03	NA	<1,000	<500	NS-FP	NS-FP	30	NS-FP	<25	404	903	411	<5	<125	<50	<125	<5	635	845	<5	<25														
	Jun-03	NA	<200	<400	1	NS-FP	NS-FP	<50	NS-FP	<20	398	440	19	<2	<2	<5	<50	<2	506	1,530	<5	<2	<20	<2	<2	<2	<2	<100							
	Sep-03	NA	NA	NA	1	NS-NW	NS-FP	NA	NS-FP	<20	320	570	82	<2	<2	<4	<50	<2	400	NS-FP	<2	<10	NS-NW	<2	<2	<2	<2	170							
	Dec-03	NA	NA	NA	NA	1	NS-FP	NS-FP	NA	NS-FP	<20	412	506	294	<2	<4	<5	NS-FP	<2	459	NS-FP	13.6	<40	NS-NW	Table 5	Table 5	NS-NW								
	Mar-04	NA	NA	NA	1	NS-FP	NS-FP	NA	NS-FP	<20	Table 2	375	618	<2	<2	3.4	NS-FP	<2	Table 2	Table 2	<2	5.5	<4	Table 5	Table 5	300									
	Jun-04	NA	NA	NA	1	NS-FP	NS-FP	NA	NS-FP	<4	NS-FP	455	340	<2	<2	<2	NS-FP	<2	NS-FP	NS-FP	<2	<4	NS-NW	<2	<2	<2	189								
	Sep-04	NA	NA	NA	1	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	500	410	<2	<2	<2	NS-FP	<2	NS-FP	NS-FP	<2	<4	NS-NW	<2	<2	<2	NA								
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	NS-FP	1,440	290	<2	<4	<2	NS-FP	<2	NS-FP	NS-FP	<2	NS-FP	NS-FP	<2	<2	<2	<2	<2	<2	NS-NW						

Table 4 (cont.): Detected VOCs from Groundwater Sample Results using EPA Method 8260 ( $\mu\text{g/L}$ )

VOCs	Date	MW-1 <sup>1</sup>	MW-2 <sup>1</sup>	MW-3 <sup>1</sup>	MW-4 <sup>1</sup>	MW-5 <sup>1</sup>	MW-6 <sup>1</sup>	MW-7 <sup>1</sup>	MW-8 <sup>1</sup>	MW-9 <sup>1</sup>	MW-10 <sup>1</sup>	MW-11 <sup>1</sup>	MW-12 <sup>1</sup>	MW-13 <sup>1</sup>	MW-14 <sup>1</sup>	MW-15 <sup>1</sup>	MW-16 <sup>1</sup>	MW-17 <sup>1</sup>	MW-18 <sup>1</sup>	MW-19 <sup>1</sup>	MW-20 <sup>1</sup>	MW-21 <sup>1</sup>	MW-22 <sup>1</sup>	MW-23 <sup>1</sup>	MW-24 <sup>1</sup>	MW-25 <sup>1</sup>	MW-26 <sup>1</sup>	
Toluene	Feb-94	580	7,390	579	12,700	15,300	398																					
	Nov-00	4,000	57	3,700	NS-FP	NS-FP	800																					
	Oct-01	2,470	26	5,150	NS-NW	Table 2	975																					
	Feb-02	4,880	26.2	4,520	NS-FP	NS-FP	1,330																					
	Jun-02	6,180	102	4,780	NS-FP	NS-FP	1,280	NS-FP	<20																			
	Oct-02	5,390	39	4,810	NS-FP	NS-FP	2,560	NS-FP	<5																			
	Dec-02	NA	158	5,770	NS-FP	NS-FP	541	NS-FP	<5	19,600	1,230	29.5	12	2,840	14.4	<50	<1	1,730	13,500	3.3	6.7							
	Mar-03	NA	<200	2,310	NS-FP	NS-FP	938	NS-FP	<5	12,000	3,830	14.5	<1	230	<10	<25	<1	4,970	11,600	<1	<5							
	Jun-03	NA	<100	2,080	NS-FP	NS-FP	724	NS-FP	<10	10,900	4,620	<5	<1	<1	<2.5	<25	<1	5,510	13,300	7.2	<1	<10	<1	<1	<1	<1	10,500	
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	<1	13,800	4,030	<5	<1	<1	2	<25	<1	3,700	NS-FP	<1	10	NS-NW	<1	<1	<1	<1	NS-NW	
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<1	13,300	6,570	9.7	<1	<2	3.2	NS-FP	<1	2,350	NS-FP	14.8	<1	NS-NW	Table 5	Table 5	Table 5	Table 5	NS-NW	
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	Table 2	6,050	<2.5	<1	<1	54.8	NS-FP	<1	Table 2	Table 2	<1	17.5	16.4	Table 5	Table 5	Table 5	Table 5	15,200	
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<2	NS-FP	9,090	3.6	<1	<1	43.3	NS-FP	<1	NS-FP	NS-FP	<1	1.7	NS-NW	<1	<1	<1	<1	14,500	
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<5	NS-FP	16,200	1.5	<1	<1	101	NS-FP	<1	NS-FP	NS-FP	<1	94	NS-NW	<1	<1	<1	<1	NA	
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<5	NS-FP	16,300	<1	<1	<2	33.5	NS-FP	<1	NS-FP	NS-FP	<1	NS-FP	NS-NW	<1	<1	<1	<1	NS-NW	
Vinyl Chloride	Oct-01	1,350	75	<5	NS-NW	Table 2	188																					
	Feb-02	1,060	197	896	NS-FP	NS-FP	517																					
	Jun-02	<100	<200	<50	NS-FP	NS-FP	<10	NS-FP	<40																			
	Oct-02	2,860	2,710	12,200	NS-FP	NS-FP	684	NS-FP	123																			
	Dec-02	NA	2,720	12,700	NS-FP	NS-FP	423	NS-FP	107	4,100	198	1,100	6.2	<50	93.1	555	<2	<200	<1,000	<2	28.1							
	Mar-03	NA	1,640	7,870	NS-FP	NS-FP	200	NS-FP	92	3,680	1,180	66.6	2.6	<50	77.8	387	<2	<1,000	830	<2	22.8							
	Jun-03	NA	4,500	2,380	NS-FP	NS-FP	360	NS-FP	173	3,410	1,830	38	3.8	<2	49	395	<2	<400	<1,000	<5	<2	88.9	<2	<2	<2	<100		
	Sep-03	NA	NA	NS-NW	NS-FP	NA	NS-FP	296	4,510	1,510	38	<2	5.2	51	588	<2	800	NS-FP	<2	31.5	NS-NW	<2	<2	<2	<100			
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	5.2	3,700	1,530	13.1	<2	5.1	134	NS-FP	<2	<200	NS-FP	<2	47.3	NS-NW	Table 5	Table 5	Table 5	Table 5	NS-NW	
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	155	Table 2	1,190	6.5	<1	<1	548	NS-FP	<1	Table 2	Table 2	<1	86	860	Table 5	Table 5	Table 5	Table 5	450	
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	191	NS-FP	3,320	10.4	<1	2	138	NS-FP	<1	NS-FP	NS-FP	<1	13.6	NS-NW	<1	<1	<1	<1	NA	
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	111	NS-FP	2,550	10	<1	5.5	272	NS-FP	<1	NS-FP	NS-FP	<1	202	NS-NW	<1	<1	<1	<1	NA	
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	32.9	NS-FP	5,410	3.6	<1	<2	34.7	NS-FP	<1	NS-FP	NS-FP	<1	NS-FP	NS-NW	<1	<1	<1	<1	NS-NW	
Xylenes	Feb-94	2,182	7,790	1,014	4,382	4,710	188																					
	Nov-00	3,490	<500	2,500	NS-FP	NS-FP	247																					
	Oct-01	2,770	<2	3,720	NS-NW	Table 2	301																					
	Feb-02	3,780	14.8	3,070	NS-FP	NS-FP	280																					
	Jun-02	5,240	152	3,680	NS-FP	NS-FP	354	NS-FP	<20																			
	Oct-02	3,970	73	2,570	NS-FP	NS-FP	576	NS-FP	<5																			
	Dec-02	NA	355	2,900	NS-FP	NS-FP	121	NS-FP	<5	4,690	748	242	<1	1,760	<10	<50	<1	2,690	3,940	<1	<3							
	Mar-03	NA	318	2,100	NS-FP	NS-FP	318	NS-FP	<10	2,330	1,620	28.1	<2	100	<20	<50	<2	4,200	4,980	<2	8.4							
	Jun-03	NA	170	1,760	NS-FP	NS-FP	238	NS-FP	<10	4,590	1,580	<5	<1	<1	<2.5	<25	<1	3,650	6,040	B.3	<1	<10	<1	<1	<1	<1	1,050	
	Sep-03	NA	NA	NA	NS-NW	NS-FP	NA	NS-FP	<10	4,460	1,320	9	<1	<1	<2	<25	<1	2,820	NS-FP	<1	93	NS-NW	<1	<1	<1	<1	8,870	
	Dec-03	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<1	4,590	2,020	157	<1	<2	<2.5	NS-FP	<1	2,810	NS-FP	22	91.9	NS-NW	Table 5	Table 5	Table 5	Table 5	NS-NW	
	Mar-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<10	Table 2	2,170	231	<1	<1	27.3	NS-FP	<1	Table 2	Table 2	<1	175	6.6	Table 5	Table 5	Table 5	Table 5	9,320	
	Jun-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<2	NS-FP	1,930	16.9	<1	<1	9.8	NS-FP	<1	NS-FP	NS-FP	<1	6.3	NS-NW	<1	<1	<1	<1	8,320	
	Sep-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<5	NS-FP	3,200	150	<1	<1	22.1	NS-FP	<1	NS-FP	NS-FP	<1	200	NS-NW	<1	<1	<1	<1	NA	
	Dec-04	NA	NA	NA	NS-FP	NS-FP	NA	NS-FP	<5	NS-FP	4,310	2.5	<1	<2	3.5	NS-FP	<1	NS-FP	NS-FP	<1	NS-FP	NS-NW	<1	<1	<1	<1	NS-NW	

NA= Not Analyzed. <sup>1</sup>= Abandoned Well. SW = Snap Sampler Method used for collection (Dec-04: MW-23, MW-24 and MW-25).  
 NS-FP= Not Sampled Free Product present. NS-NW= Not Sampled Not Enough Water present.  
 Blue= Chemicals stored on-site. Red= Transformation compounds.

**Table 5: Detected VOCs from Diffusion Bag Groundwater Samples using EPA Method 8260 (µg/L)**

	Date	Depth	MW-23	MW-24	MW-25
Screened Interval (feet bg)			71-81	67-77	71-81
DTW (ft)	15-Dec-03		42.65	45.69	47.35
	30-Mar-04		43.25	46.41	48.03
<b>VOCs</b>					
Acetone	15-Dec-03	1.5'	<25	<25	<25
	15-Dec-03	7.5'	<25	<25	<25
	30-Mar-04	2.5'	<25	<25	<25
	30-Mar-04	7.5'	<25	<25	<25
Benzene	15-Dec-03	1.5'	<1	<1	<1
	15-Dec-03	7.5'	<1	<1	<1
	30-Mar-04	2.5'	<1	<1	<1
	30-Mar-04	7.5'	<1	<1	<1
2-Butanone (MEK)	15-Dec-03	1.5'	<25	<25	<25
	15-Dec-03	7.5'	<25	<25	<25
	30-Mar-04	2.5'	<25	<25	<25
	30-Mar-04	7.5'	<25	<25	<25
Chloroethane	15-Dec-03	1.5'	<2	<2	<2
	15-Dec-03	7.5'	<2	<2	<2
	30-Mar-04	2.5'	<2	<2	<2
	30-Mar-04	7.5'	<2	<2	<2
1,1-Dichloroethane	15-Dec-03	1.5'	<2	<2	<2
	15-Dec-03	7.5'	<2	<2	<2
	30-Mar-04	2.5'	<2	<2	<2
	30-Mar-04	7.5'	<2	<2	<2
1,2-Dichloroethane	15-Dec-03	1.5'	<2	<2	<2
	15-Dec-03	7.5'	<2	<2	<2
	30-Mar-04	2.5'	<2	<2	<2
	30-Mar-04	7.5'	<2	<2	<2
1,1-Dichloroethene	15-Dec-03	1.5'	6	14.6	7.4
	15-Dec-03	7.5'	6.1	<2	0.2
	30-Mar-04	2.5'	4.4	7.6	7.4
	30-Mar-04	7.5'	4.2	6.6	6.2
cis 1,2-Dichloroethene	15-Dec-03	1.5'	2.4	8.8	3.4
	15-Dec-03	7.5'	<2	5.7	<2
	30-Mar-04	2.5'	<2	11.7	<2
	30-Mar-04	7.5'	<2	11.3	<2

**Table 6: Detected VOCs from Diffusion Bag Groundwater Samples using EPA Method 8260 (µg/L)**

<b>VOCs</b>	<b>Date</b>	<b>Depth</b>	<b>MW-23</b>	<b>MW-24</b>	<b>MW-26</b>
trans 1,2-Dichloroethene	15-Dec-03	1.5'	<2	<2	<2
	15-Dec-03	7.5'	<2	<2	<2
	30-Mar-04	2.5'	<2	<2	<2
	30-Mar-04	7.5'	<2	<2	<2
1,4 Dioxane	15-Dec-03	1.5'	<50	<50	<50
	15-Dec-03	7.5'	<50	<50	<50
	30-Mar-04	2.5'	<50	<50	<50
	30-Mar-04	7.5'	<50	<50	<50
Ethylbenzene	15-Dec-03	1.5'	<1	<1	<1
	15-Dec-03	7.5'	<1	<1	<1
	30-Mar-04	2.5'	<1	<1	<1
	30-Mar-04	7.5'	<1	<1	<1
Methylene Chloride	15-Dec-03	1.5'	<2	<2	<2
	15-Dec-03	7.5'	<2	<2	<2
	30-Mar-04	2.5'	<2	<2	<2
	30-Mar-04	7.5'	<2	<2	<2
4-Methyl-2-pentanone	15-Dec-03	1.5'	<25	<25	<25
	15-Dec-03	7.5'	<25	<25	<25
	30-Mar-04	2.5'	<25	<25	<25
	30-Mar-04	7.5'	<25	<25	<25
Naphthalene	15-Dec-03	1.5'	<2	<2	<2
	15-Dec-03	7.5'	<2	<2	<2
	30-Mar-04	2.5'	<2	<2	<2
	30-Mar-04	7.5'	<2	<2	<2
n-Propylbenzene	15-Dec-03	1.5'	<2	<2	<2
	15-Dec-03	7.5'	<2	<2	<2
	30-Mar-04	2.5'	<2	<2	<2
	30-Mar-04	7.5'	<2	<2	<2
Tetrachloroethene	15-Dec-03	1.5'	30.6	75.4	37.1
	15-Dec-03	7.5'	14.8	24.3	37.2
	30-Mar-04	2.5'	38.2	225	30.3
	30-Mar-04	7.5'	37.7	263	24.9

**Table 5: Detected VOCs from Diffusion Bag Groundwater Samples using EPA Method 8260 (µg/L)**

VOCs	Date	Depth	MW-23	MW-24	MW-25
1,1,1-Trichloroethane	15-Dec-03	1.5'	3.2	2.3	<2
	15-Dec-03	7.5'	2.6	<2	<2
	30-Mar-04	2.5'	<2	<2	<2
	30-Mar-04	7.5'	<2	<2	<2
Trichloroethene	15-Dec-03	1.5'	11.3	51.4	38.5
	15-Dec-03	7.5'	7.9	49.3	39.4
	30-Mar-04	2.5'	14.2	74.5	34.9
	30-Mar-04	7.5'	14.7	67.1	18.6
1,2,4-Trimethylbenzene	15-Dec-03	1.5'	<2	<2	<2
	15-Dec-03	7.5'	<2	<2	<2
	30-Mar-04	2.5'	<2	<2	<2
	30-Mar-04	7.5'	<2	<2	<2
1,3,5-Trimethylbenzene	15-Dec-03	1.5'	<2	<2	<2
	15-Dec-03	7.5'	<2	<2	<2
	30-Mar-04	2.5'	<2	<2	<2
	30-Mar-04	7.5'	<2	<2	<2
Toluene	15-Dec-03	1.5'	<1	<1	<1
	15-Dec-03	7.5'	<1	<1	<1
	30-Mar-04	2.5'	<1	<1	<1
	30-Mar-04	7.5'	<1	<1	<1
Vinyl Chloride	15-Dec-03	1.5'	<2	<2	<2
	15-Dec-03	7.5'	<2	<2	<2
	30-Mar-04	2.5'	<2	<2	<2
	30-Mar-04	7.5'	<2	<2	<2
Xylenes	15-Dec-03	1.5'	<1	<1	<1
	15-Dec-03	7.5'	<1	<1	<1
	30-Mar-04	2.5'	<1	<1	<1
	30-Mar-04	7.5'	<1	<1	<1
DTW= Depth to Water.					
Depth= Depth above well bottom.					
Blue= Chemicals stored on-site.					
Red= Transformation compounds.					

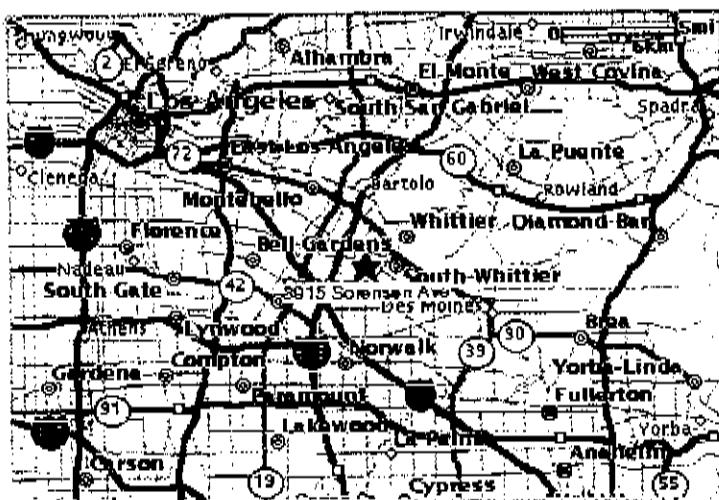
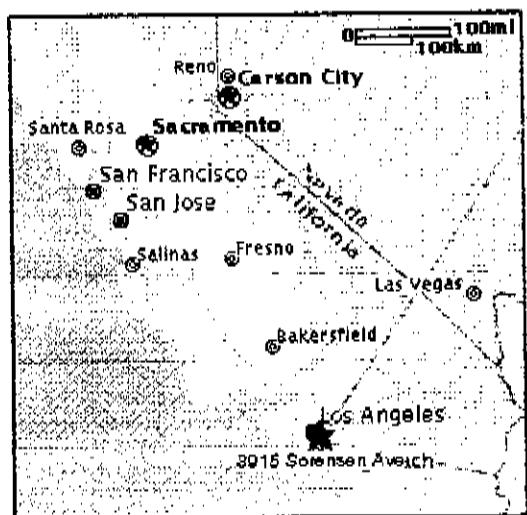
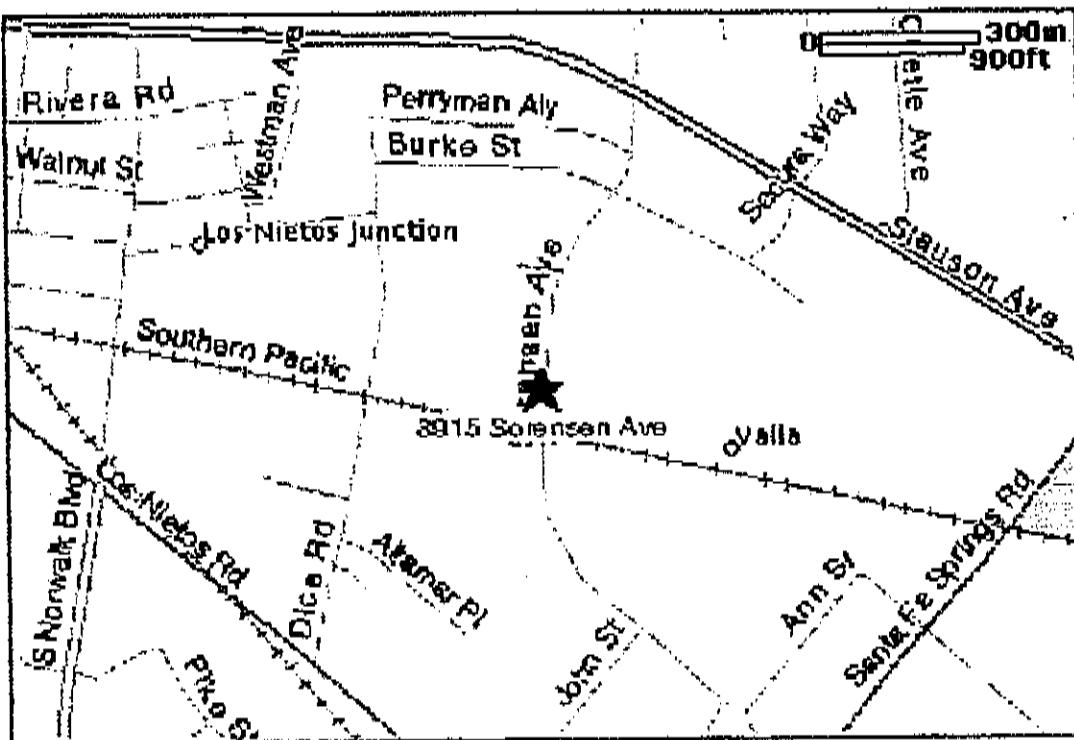
<b>Table 6. Results for EPA Methods 376.1, 325.3, 310.1, 352.1, 375.4, 7380, 7460, 160.1, Colorimetry and Standard Method 4500 (mg/L)</b>										
		<u>First Water Wells</u>			<u>Upper A1 Zone Wells</u>					
<u>Compound</u>	<u>Date</u>	<u>MW-9</u>	<u>MW-11</u>	<u>MW-12</u>	<u>MW-13</u>	<u>MW-14</u>	<u>MW-15</u>	<u>MW-17</u>	<u>MW-20</u>	<u>MW-21</u>
<b>Dissolved Organic Carbon</b>	Dec-03	12	100	3	1.6	2.9	2.4	0.9	2.2	3.4
	Mar-04	8.6	240	3.1	1.3	2.4	5.6	0.6	1	3.3
	Jun-04	7.2	84	3.2	3.1	2.1	2.3	<1	1.5	1.4
	Sep-04	4.3	48	2.1	0.9	2.7	5.9	0.6	3.4	5.1
	Dec-04	4.5	26	2.9	1.5	1.7	2.4	0.9	1.6	NS-FP
<b>Total Organic Carbon</b>	Dec-03	13	105	3.7	1.9	3.1	2.6	1.2	2.6	3.7
	Mar-04	9.6	270	3.4	1.5	3.1	6.5	1	1.1	3.7
	Jun-04	7.9	94	3.5	3.4	2.4	2.5	1.2	1.7	1.7
	Sep-04	4.6	50	2.5	1	2.9	6.1	0.9	3.7	5.4
	Dec-04	5.1	34	3.1	1.6	2.4	2.8	1.6	2	NS-FP
<b>TDS</b>	Jun-03	1,640	2,250	839	1,200	1,450	1,830	1,400	1,280	1,250
	Sep-03	1,600	1,935	735	1,185	1,205	1,195	1,675	1,235	1,296
	Dec-03	1,250	1,690	730	1,160	1,140	1,260	1,170	1,200	1,110
	Mar-04	2,620	1,660	1,570	1,210	855	873	1,310	2,020	1,080
	Jun-04	1,760	1,590	721	1,290	1,280	1,230	1,450	1,250	1,180
	Sep-04	1,700	1,370	578	1,190	1,170	1,240	1,080	1,300	1,180
	Dec-04	1,510	809	479	946	959	1,650	1,850	1,790	NS-FP
<b>Total Alkalinity</b>	Jun-03	525	960	290	430	433	455	460	425	472
	Sep-03	545	955	408	473	370	448	475	433	460
	Dec-03	540	912	340	435	350	465	430	479	530
	Mar-04	485	766	498	452	298	458	407	449	542
	Jun-04	430	696	505	435	373	456	433	438	440
	Sep-04	275	650	375	373	288	455	330	415	548
	Dec-04	370	695	455	443	401	445	430	443	NS-FP
<b>Carbota/bicarbote</b>	Jun-03	612	1,152	348	516	519	546	552	510	567
	Sep-03	654	1,176	489	507	444	507	570	519	552
	Dec-03	324	547	204	261	210	279	258	287	318
	Mar-04	582	919	598	542	351	550	488	539	650
	Jun-04	262	424	308	265	228	278	264	267	268
	Sep-04	168	397	229	227	175	278	201	253	334
	Dec-04	171	177	61	116	244	271	262	273	NS-FP

**Table 6. (Continued) Results for EPA Methods 376.1, 325.3, 310.1, 352.1, 375.4, 7380, 7460,****160.1, Colorimetry and Standard Method 4500 (mg/L)**

Compound	Date	First Water Wells			Upper A1 Zone Wells					
		MW-9	MW-11	MW-12	MW-13	MW-14	MW-15	MW-17	MW-20	MW-21
<b>Chloride</b>	Jun-03	241	425	70.9	101	92.2	95	96.4	87.9	87.9
	Sep-03	241	383	57	99	142	106	170	92	142
	Dec-03	238	344	74.4	106	160	113	106	99.3	135
	Mar-04	221	441	76.2	92.6	92.6	104	95.3	123	158
	Jun-04	198	332	78	119	122	102	108	109	116
	Sep-04	132	334	54.5	123	197	129	102	91.9	129
	Dec-04	152	158	54.5	103	98	113	98	112	NS-FP
<b>Sulfide</b>	Jun-03	<0.02	3.68	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Sep-03	<0.05	2.56	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dec-03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Mar-04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Jun-04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Sep-04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Dec-04	<0.02	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	NS-FP
<b>Sulfate</b>	Jun-03	264	7.9	108	214	182	279	206	176	182
	Sep-03	250	26	85	230	202	285	215	215	230
	Dec-03	783	16	47	533	399	287	387	501	287
	Mar-04	595	<1	27.6	262	<1	<1	335	250	<1
	Jun-04	707	3.49	42	143	603	735	164	81.4	518
	Sep-04	490	<1	36.5	114	278	95	319	367	192
	Dec-04	454	<1	28.1	162	112	140	120	195	NS-FP
<b>Nitrate</b>	Jun-03	16.4	8.81	<0.01	27.8	25.1	29.7	27.8	24.2	23.8
	Sep-03	0.138	<0.01	<0.01	0.027	0.012	0.029	<0.01	0.17	0.019
	Dec-03	25.5	3.96	1.16	17.4	20.9	25.2	20.1	21.4	22.8
	Mar-04	22.5	12.7	0.46	19.6	24.1	17.1	18	28.7	20
	Jun-04	29	8.18	1.24	18	27	32	28.7	25.6	24
	Sep-04	30.8	8.78	2.81	27.6	20.3	27	23.2	22.1	8.47
	Dec-04	12.7	5.05	2.97	14.2	21.6	20.4	17.8	16.2	NS-FP

<b>Table 6. (Continued) Results for EPA Methods 376.1, 325.3, 310.1, 352.1, 375.4, 7380, 7460, 160.1, Colorimetry and Standard Method 4500 (mg/L)</b>										
<b>Compound</b>	<b>Date</b>	<b>First Water Wells</b>			<b>Upper A1 Zone Wells</b>					
		<b>MW-9</b>	<b>MW-11</b>	<b>MW-12</b>	<b>MW-13</b>	<b>MW-14</b>	<b>MW-15</b>	<b>MW-17</b>	<b>MW-20</b>	<b>MW-21</b>
<b>Total Iron</b>	Jun-03	<0.1	10.7	0.16	0.14	<0.1	0.2	0.43	0.22	<0.1
	Sep-03	<0.05	18.7	0.41	<0.05	<0.05	<0.05	0.26	<0.05	<0.05
	Dec-03	0.36	30.6	3.65	0.19	0.14	0.38	0.36	0.24	1.2
	Mar-04	0.15	10.5	4.14	<0.1	<0.1	<0.1	<0.1	0.62	<0.1
	Jun-04	<0.1	5.6	<0.1	0.12	0.2	0.2	0.15	<0.1	0.2
	Sep-04	0.12	5.1	<0.1	<0.1	<0.1	0.13	<0.1	<0.1	<0.1
	Dec-04	<0.1	1.65	0.36	0.45	0.4	0.25	0.17	0.13	NS-FP
<b>Ferrous Iron</b>	Jun-03	<0.05	0.49	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Sep-03	<0.05	9.98	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dec-03	0.15	2.32	0.73	0.16	0.21	0.21	0.22	0.14	0.17
	Mar-04	<0.05	2.62	2.25	<0.05	0.31	0.57	<0.05	0.1	0.86
	Jun-04	<0.05	2.42	0.15	<0.05	0.24	0.17	<0.05	<0.05	0.48
	Sep-04	<0.05	1.46	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dec-04	<0.05	<0.05	0.11	0.19	0.08	0.23	0.07	<0.05	NS-FP
<b>Manganese</b>	Jun-03	<0.1	6.7	1.6	<0.1	<0.1	0.4	<0.1	<0.1	0.43
	Sep-03	0.07	12.5	2.49	0.66	0.42	0.4	<0.05	0.12	0.64
	Dec-03	0.15	13.5	1.47	0.22	1.02	1.14	0.23	0.12	1.96
	Mar-04	0.11	4.71	1.12	0.13	0.15	1.11	0.09	0.14	1.78
	Jun-04	0.2	6.6	0.9	<0.05	0.2	0.4	<0.05	<0.05	0.1
	Sep-04	0.54	9.04	1.12	0.12	0.37	1.49	0.08	0.09	1.79
	Dec-04	0.12	5.19	1.25	<0.05	0.09	0.76	<0.05	<0.05	NS-FP
<b>Ethene</b>	Mar-04	22.7	1,001	176	<5	255	<5	<5	<5	1,080
	Jun-04	28.5	2,120	174	<5	<5	15.5	<5	<5	<5
	Sep-04	30	4,620	46	<5	<5	<5	<5	<5	49
	Dec-04	10.5	2,580	27	<5	<5	25.5	<5	<5	NS-FP

## **FIGURES**



Clean Soil, Inc.  
4359 Phelan Road  
Phelan, CA 92371

### Site Location Map

Former Angeles Chemical Company  
8915 Sorensen Ave., Santa Fe Springs, CA 90670

FIGURE

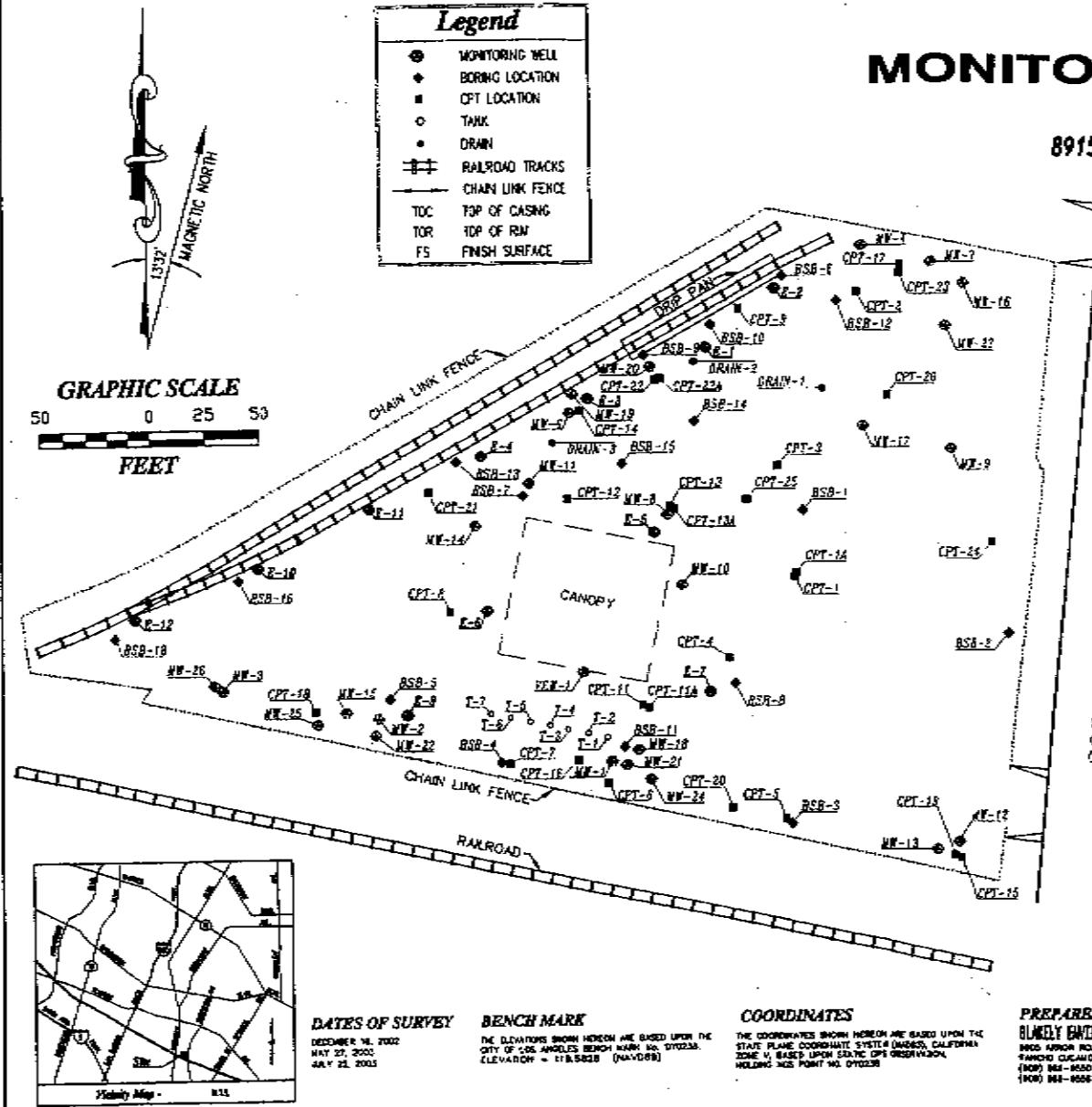
1

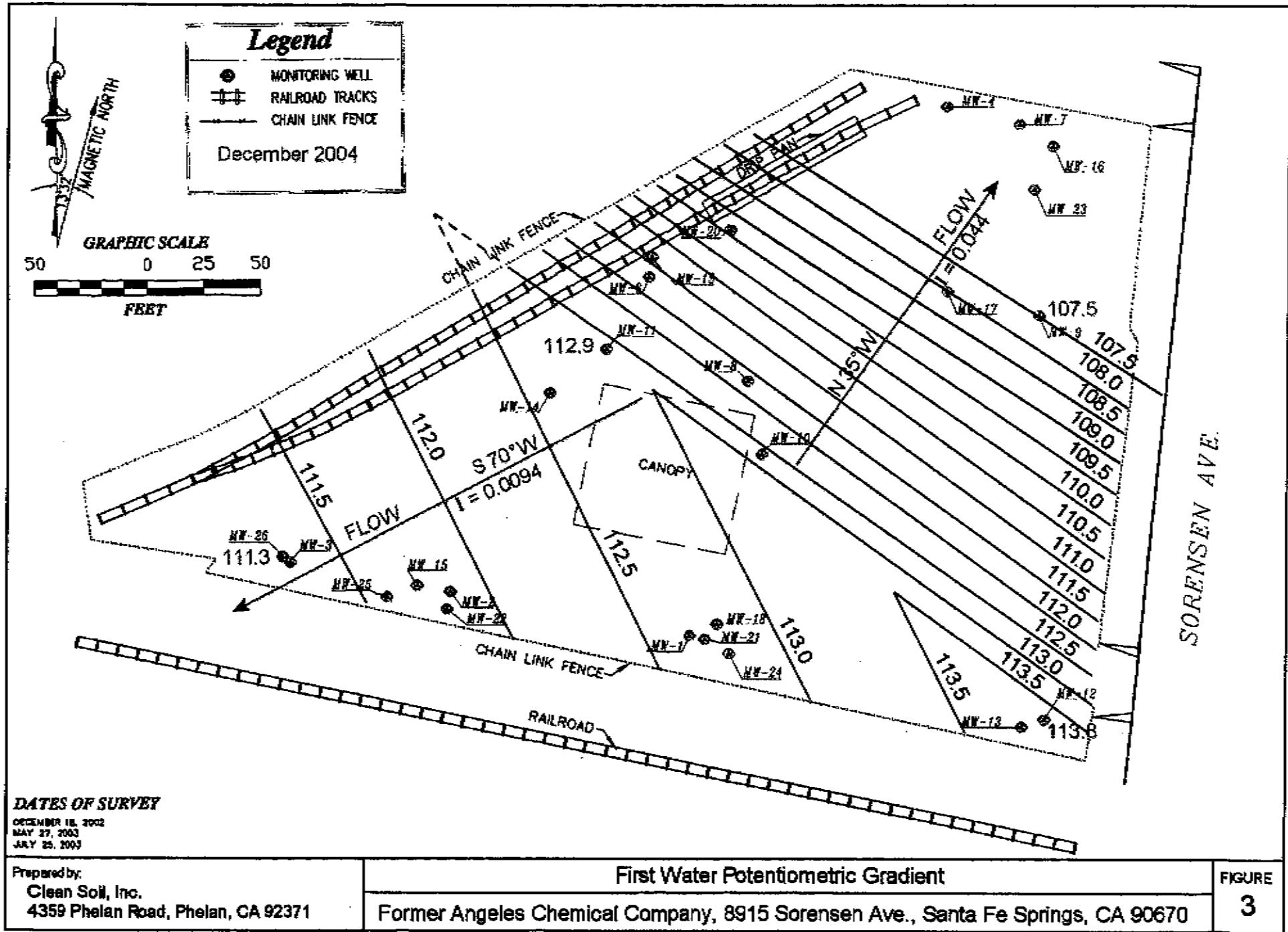
# FIGURE 2

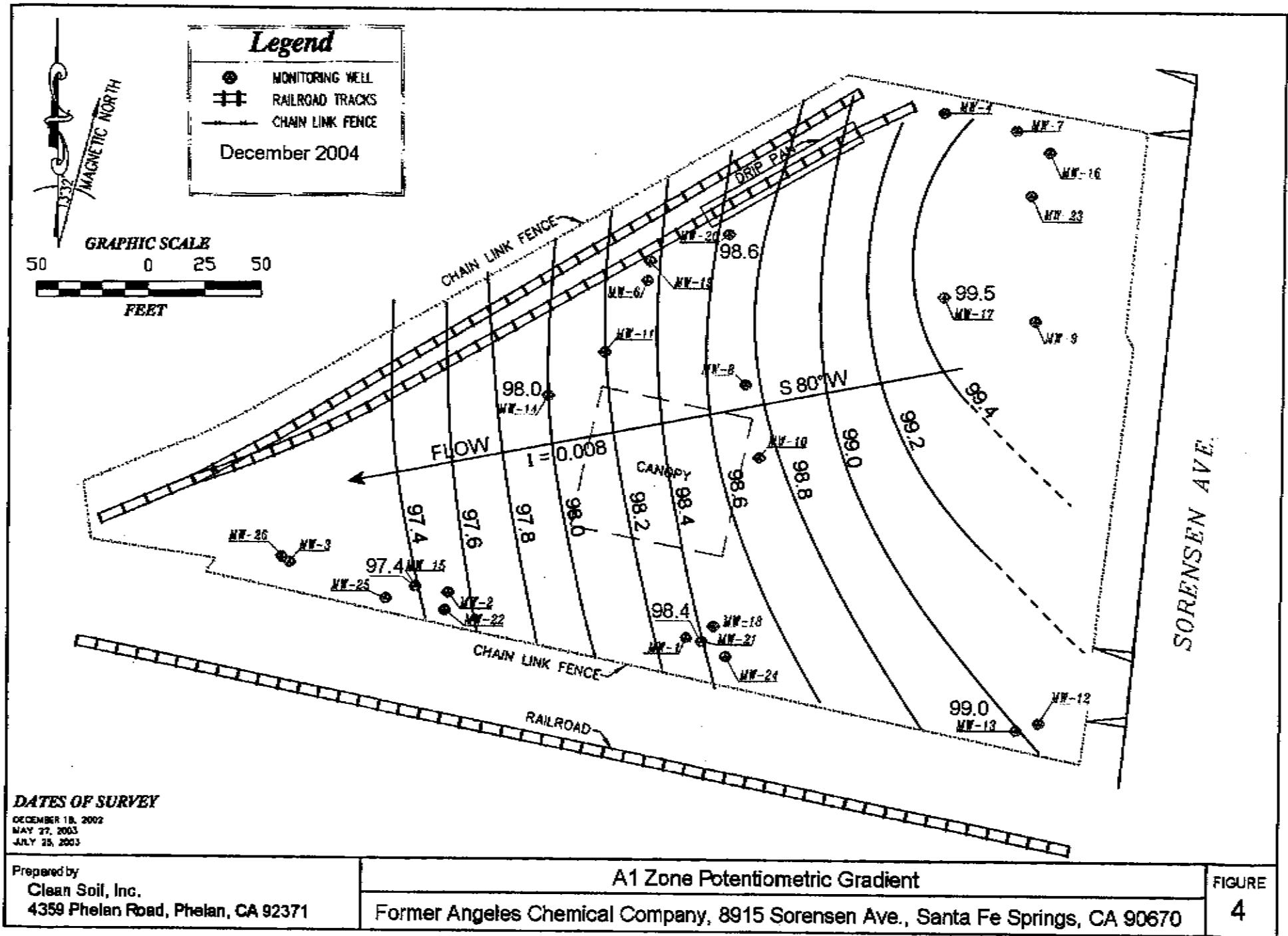
## MONITORING WELL LOCATIONS

FORMER ANGELES CHEMICAL CO.

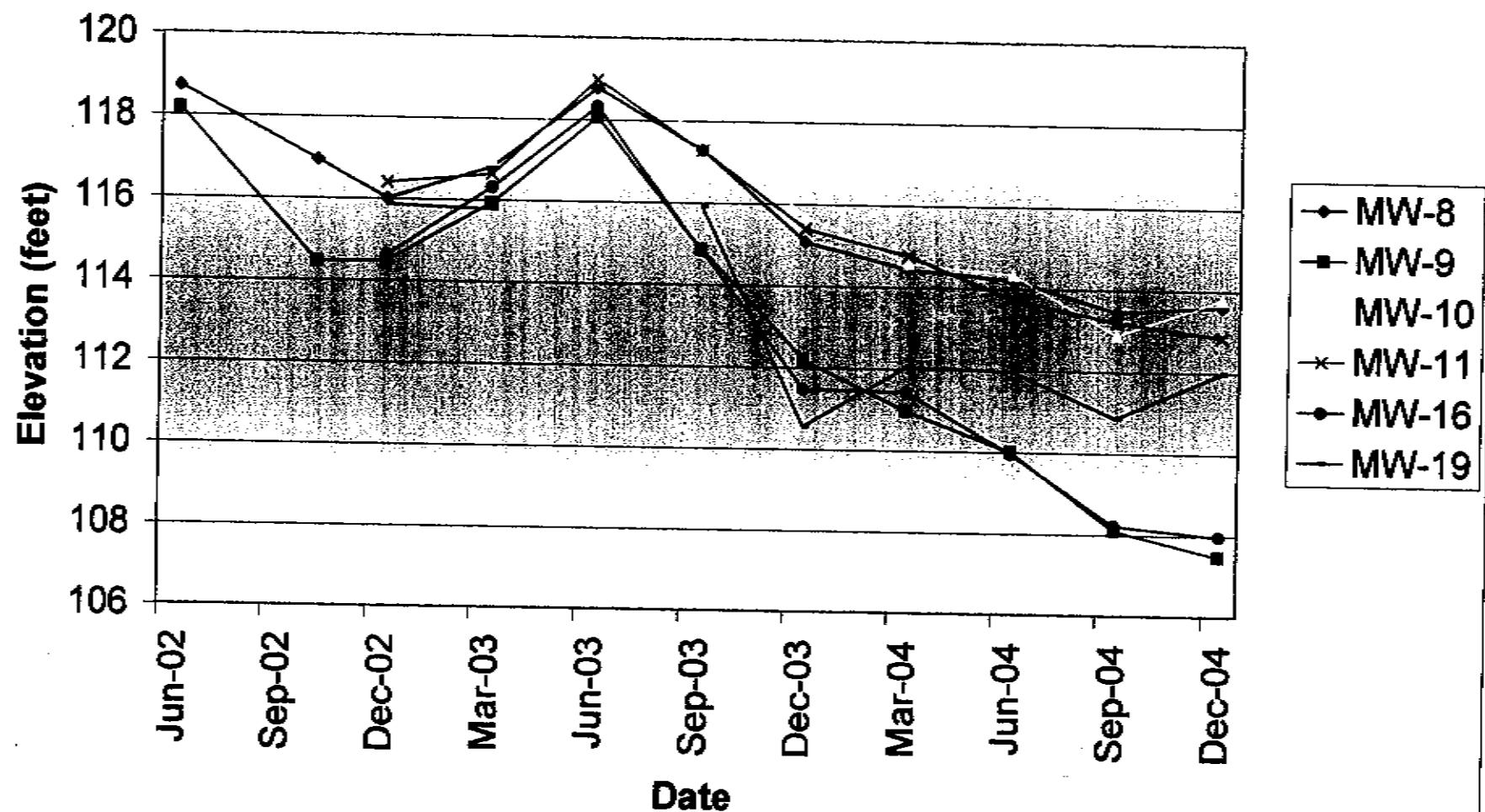
8915 SORENSEN AVENUE, SANTA FE SPRINGS, CA 90670



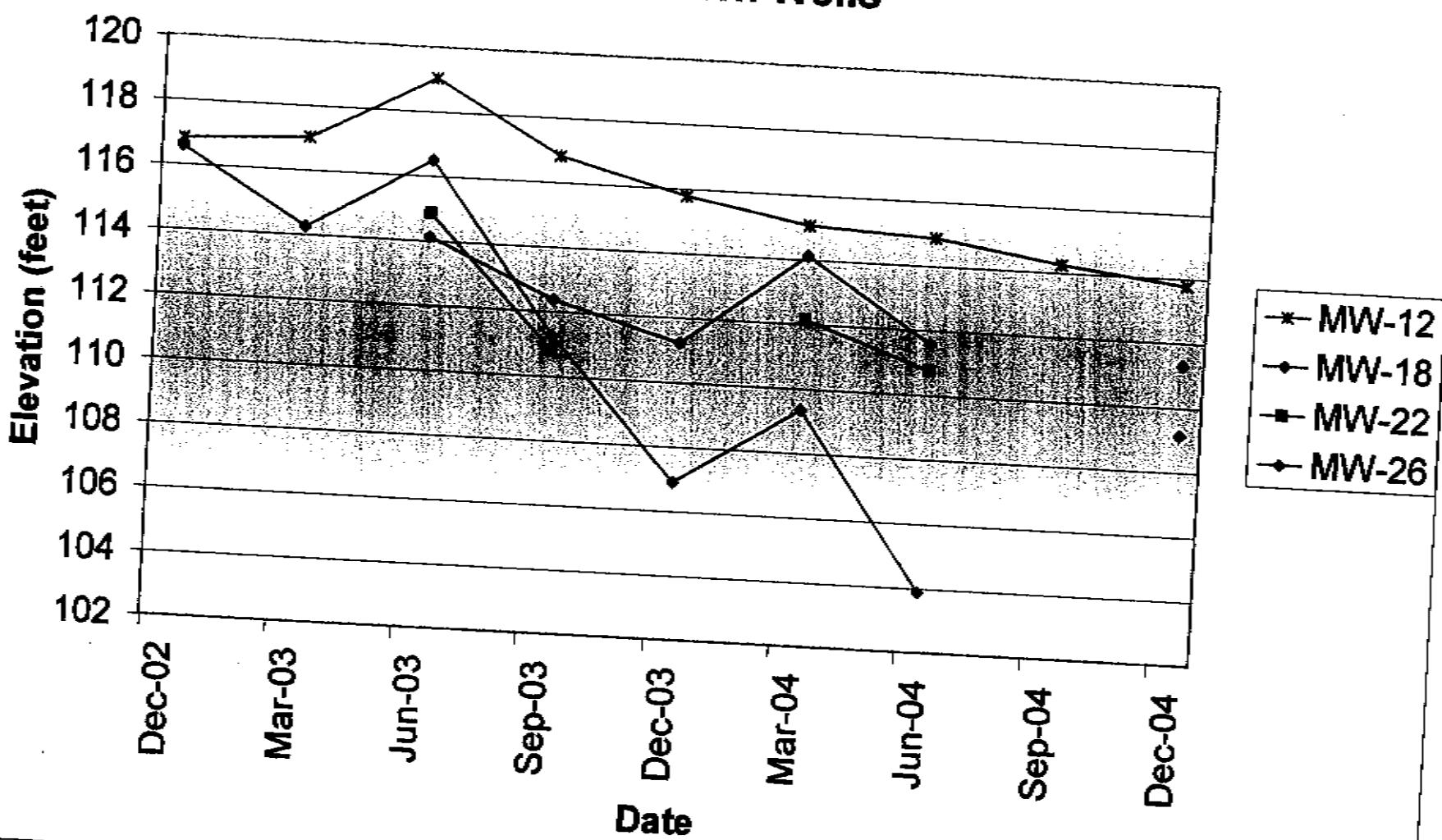




**Figure 5: First Water Groundwater Elevations from Central and Northern Wells**

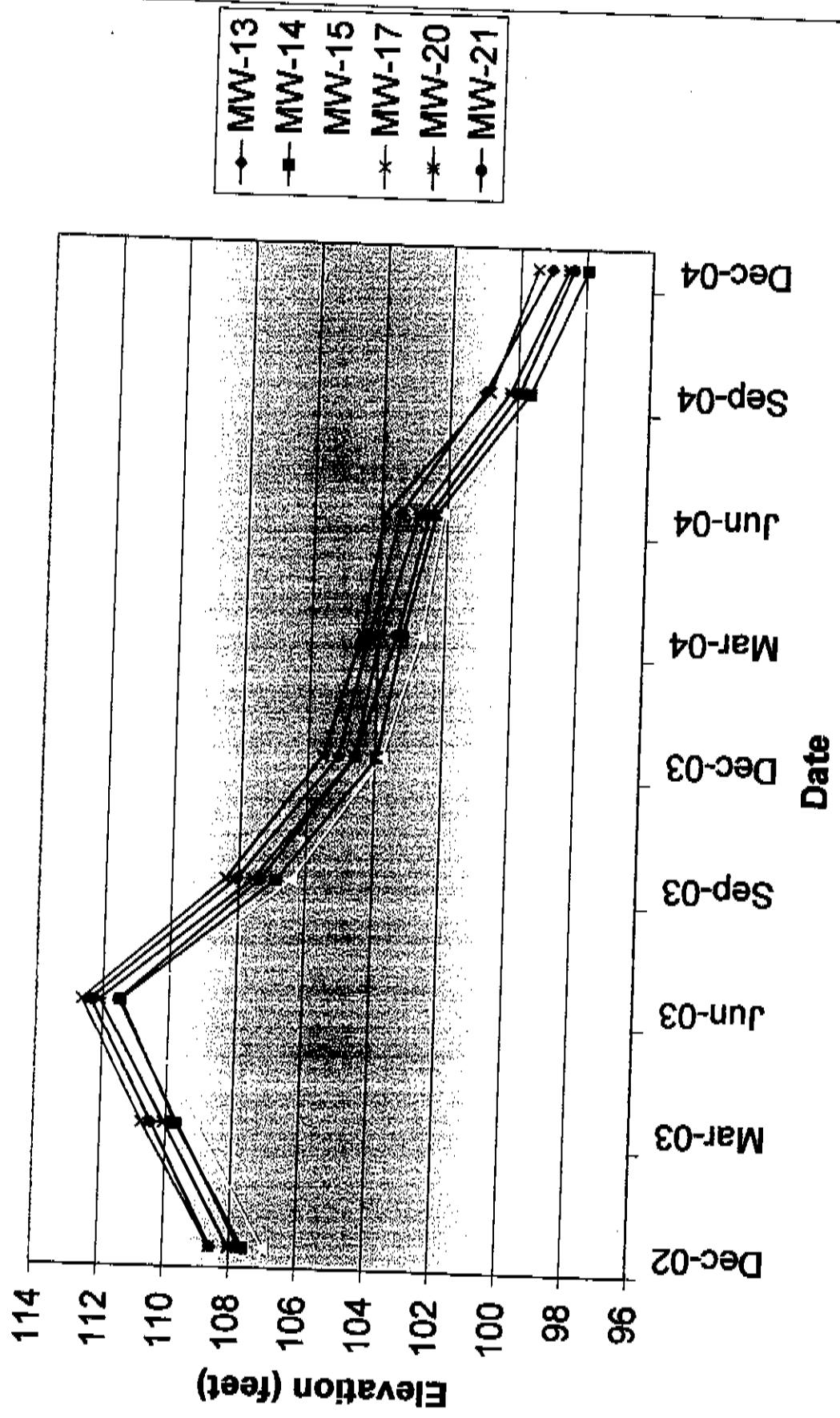


**Figure 6: First Water Groundwater Elevations from Southern Wells**

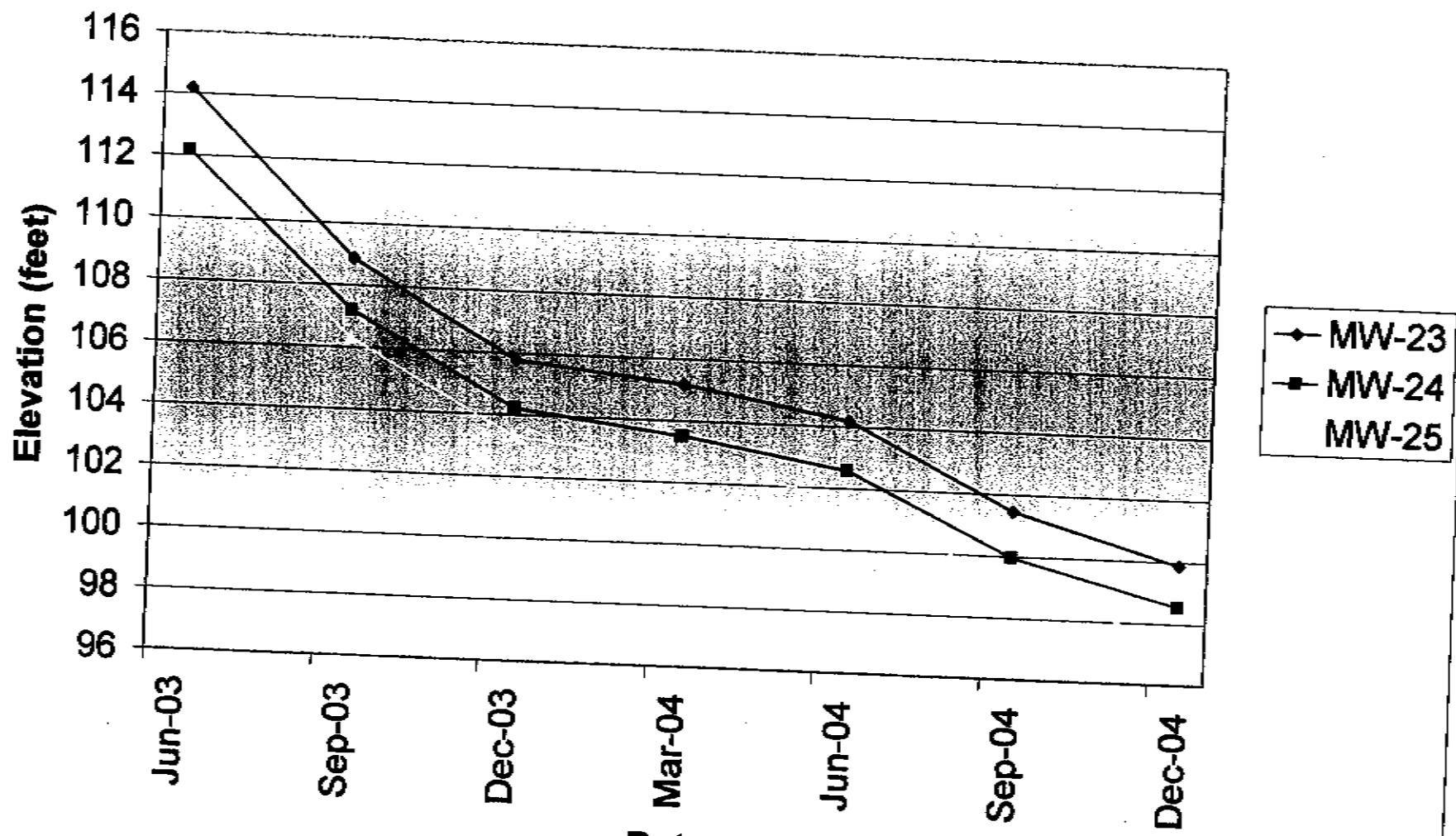


Fin...

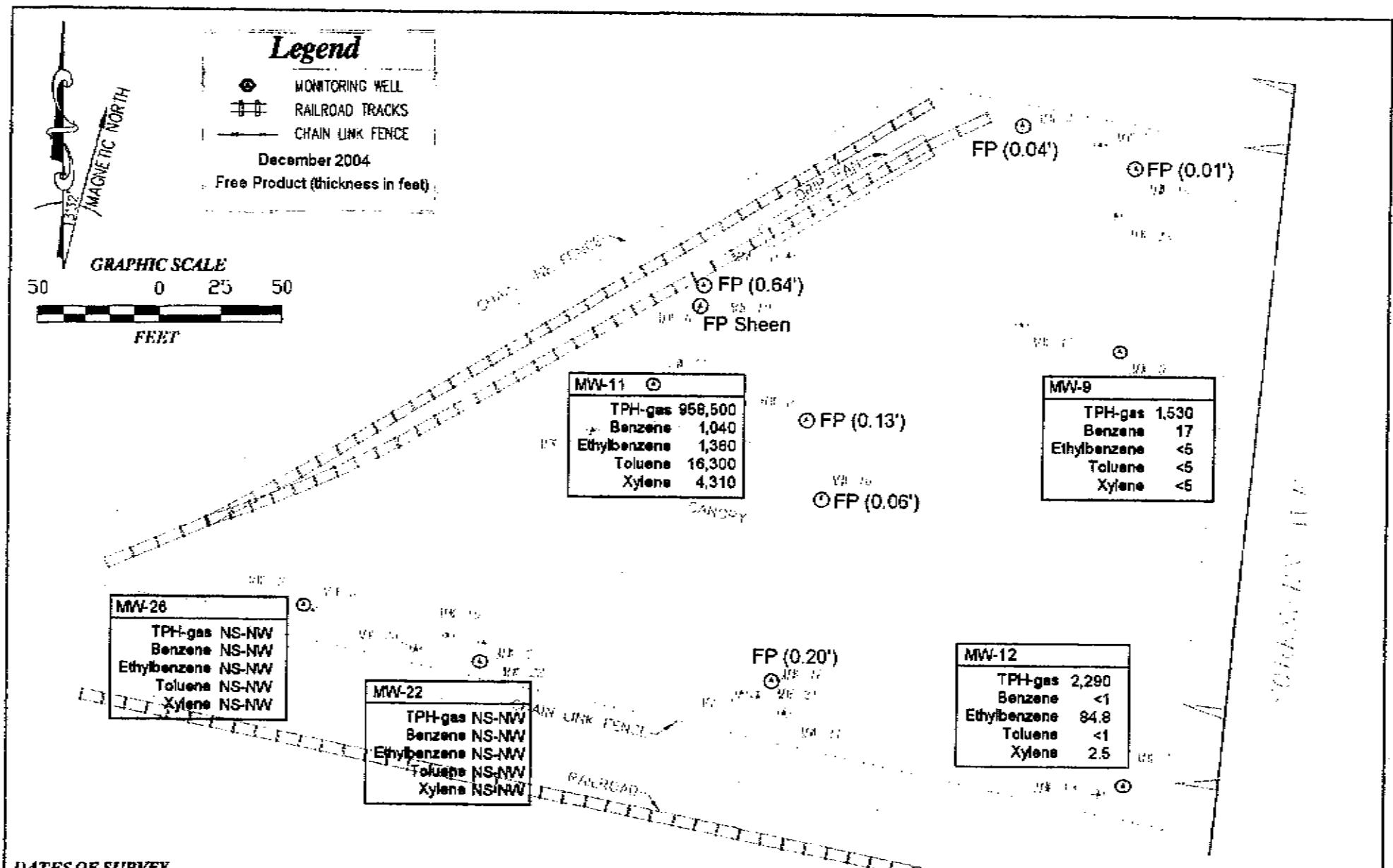
**Figure 7: Upper A1 Groundwater Elevations**



**Figure 8: Lower A1 Groundwater Elevations**



110  
Elevations



#### DATES OF SURVEY

DECEMBER 18, 2002  
MAY 27, 2003  
JULY 25, 2003

Prepared by:  
Clean Soil, Inc.  
4359 Phelan Road, Phelan, CA 92371

TPH-gas and BTEX Concentrations in First Water (µg/L)  
Former Angeles Chemical Company, 8915 Sorensen Ave., Santa Fe Springs, CA 90670

FIGURE  
9

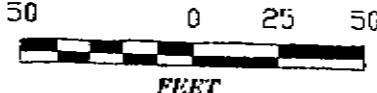
## Legend

- MONITORING WELL
- RAILROAD TRACKS
- CHAIN LINK FENCE

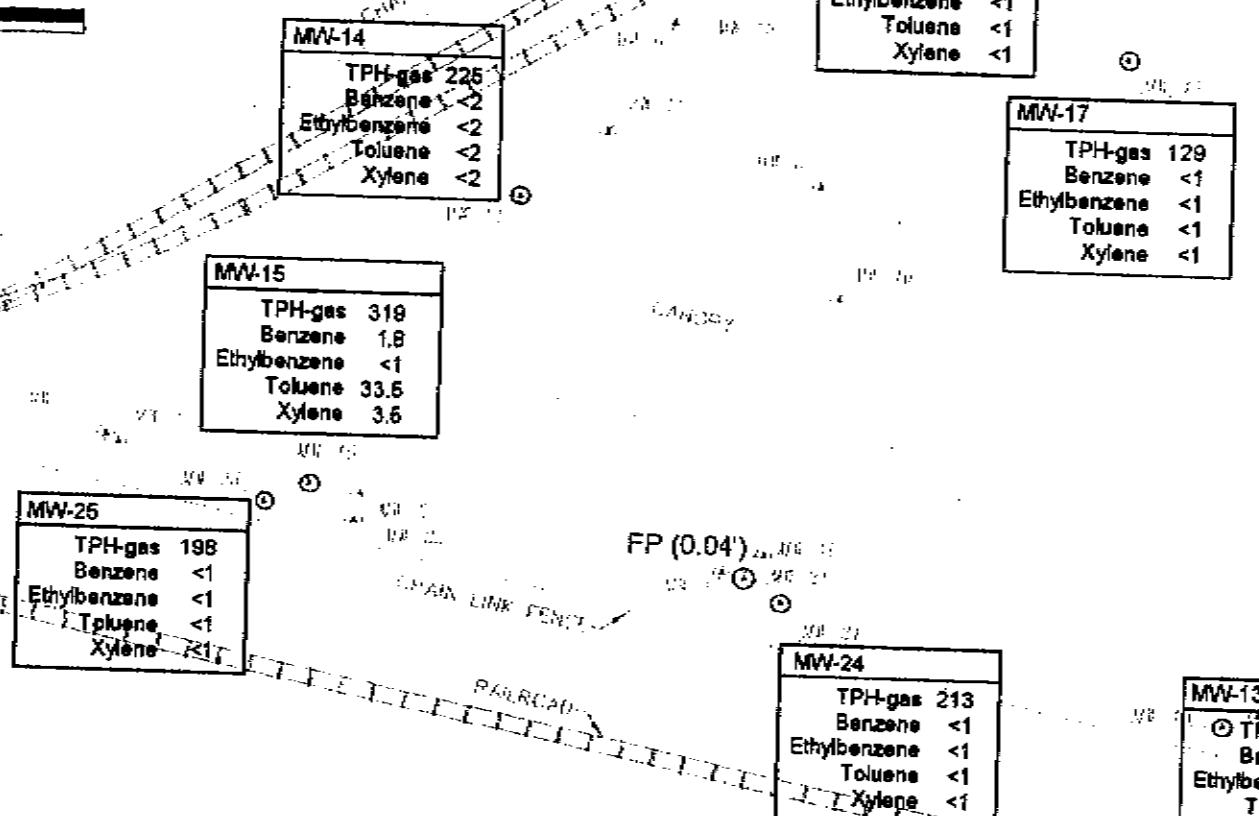
December 2004

Free Product (thickness in feet)

## GRAPHIC SCALE



MAGNETIC NORTH



## DATES OF SURVEY

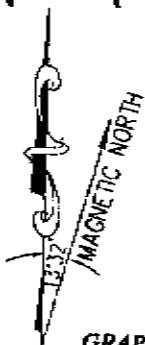
DECEMBER 18, 2002  
MAY 27, 2003  
JULY 25, 2003

Prepared by:  
Clean Soil, Inc.  
4359 Phelan Road, Phelan, CA 92371

TPH-gas and BTEX Concentrations in Upper and Lower A1 Zones ( $\mu\text{g/L}$ )

Former Angeles Chemical Company, 8915 Sorensen Ave., Santa Fe Springs, CA 90670

FIGURE  
10



### Legend

- MONITORING WELL
- RAILROAD TRACKS
- CHAIN LINK FENCE
- December 2004
- Free Product (thickness in feet)

**GRAPHIC SCALE**

50      0      25      50  
FEET

**MW-26**

PCE	NS-NW
TCE	NS-NW
1,1,1-TCA	NS-NW
1,4-Dioxane	NS-NW
1,1-DCA	NS-NW
1,1-DCE	NS-NW
cis-1,2-DCE	NS-NW
Vinyl Chloride	NS-NW
Methylene-Cl	NS-NW

**MW-22**

PCE	NS-NW
TCE	NS-NW
1,1,1-TCA	NS-NW
1,4-Dioxane	NS-NW
1,1-DCA	NS-NW
1,1-DCE	NS-NW
cis-1,2-DCE	NS-NW
Vinyl Chloride	NS-NW
Methylene-Cl	NS-NW

**MW-11**

PCE	<200
TCE	<200
1,1,1-TCA	280
1,4-Dioxane	<2
1,1-DCA	85,300
1,1-DCE	360
cis-1,2-DCE	13,600
Vinyl Chloride	5,410
Methylene-Cl	<200

**MW-9**

PCE	57.9
TCE	21.4
1,1,1-TCA	27.8
1,4-Dioxane	488
1,1-DCA	498
1,1-DCE	731
cis-1,2-DCE	315
Vinyl Chloride	32.9
Methylene-Cl	<10

FP (0.13')

FP (0.06')

FP (0.20')

**MW-12**

PCE	<2
TCE	<2
1,1,1-TCA	<2
1,4-Dioxane	<2
1,1-DCA	158
1,1-DCE	1.8
cis-1,2-DCE	2
Vinyl Chloride	3.8
Methylene-Cl	<2

### DATES OF SURVEY

DECEMBER 18, 2002  
MAY 27, 2003  
JULY 26, 2003

Prepared by:  
Clean Soil, Inc.  
4359 Phelan Road, Phelan, CA 92371

Chlorinated VOCs and 1,4-Dioxane Concentrations in First Water ( $\mu\text{g/L}$ )

Former Angeles Chemical Company, 8915 Sorensen Ave., Santa Fe Springs, CA 90670

FIGURE  
11



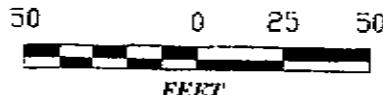
## Legend

- MONITORING WELL
- RAILROAD TRACKS
- CHAIN LINK FENCE

December 2004

Free Product (thickness in feet)

## GRAPHIC SCALE



MW-14	
PCE	19.2
TCE	24.2
1,1,1-TCA	<2
1,4-Dioxane	<2
1,1-DCA	101
1,1-DCE	186
cis-1,2-DCE	79.2
Vinyl Chloride	<2
Methylene-Cl	<2

MW-15	
PCE	38.2
TCE	47
1,1,1-TCA	2.2
1,4-Dioxane	42
1,1-DCA	101
1,1-DCE	70.2
cis-1,2-DCE	72.2
Vinyl Chloride	34.7
Methylene-Cl	<2

MW-25	
PCE	86.1
TCE	65.2
1,1,1-TCA	<2
1,4-Dioxane	NA
1,1-DCA	<1
1,1-DCE	8.0
cis-1,2-DCE	2.2
Vinyl Chloride	<1
Methylene-Cl	<2

## DATES OF SURVEY

DECEMBER 18, 2002  
MAY 27, 2003  
JULY 25, 2003

Prepared by:  
Clean Soil, Inc.  
4359 Phelan Road, Phelan, CA 92371

Chlorinated VOCs and 1,4-Dioxane Concentrations in Upper and Lower A1 Zones ( $\mu\text{g/L}$ )

Former Angeles Chemical Company, 8915 Sorensen Ave., Santa Fe Springs, CA 90670

MW-20	
PCE	27.1
TCE	14.6
1,1,1-TCA	<2
1,4-Dioxane	<2
1,1-DCA	1.9
1,1-DCE	14.6
cis-1,2-DCE	5.5
Vinyl Chloride	<1
Methylene-Cl	<2

MW-17	
PCE	81.1
TCE	28.3
1,1,1-TCA	<2
1,4-Dioxane	<2
1,1-DCA	<1
1,1-DCE	5.6
cis-1,2-DCE	10.1
Vinyl Chloride	<1
Methylene-Cl	<2

MW-23	
PCE	62.1
TCE	27.7
1,1,1-TCA	<2
1,4-Dioxane	NA
1,1-DCA	<1
1,1-DCE	3.2
cis-1,2-DCE	4.5
Vinyl Chloride	<1
Methylene-Cl	<2

MW-24	
PCE	75.1
TCE	33.9
1,1,1-TCA	<2
1,4-Dioxane	NA
1,1-DCA	<1
1,1-DCE	8.6
cis-1,2-DCE	5.9
Vinyl Chloride	<1
Methylene-Cl	<2

MW-13	
PCE	58.8
TCE	24.3
1,1,1-TCA	<2
1,4-Dioxane	<2
1,1-DCA	17.4
1,1-DCE	22.7
cis-1,2-DCE	31.7
Vinyl Chloride	<1
Methylene-Cl	<2

FIGURE  
12

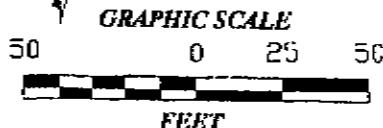


## Legend

- MONITORING WELL
- RAILROAD TRACKS
- CHAIN LINK FENCE

December 2004

Free Product (thickness in feet)



MW-26
Acetone NS-NW
MEK NS-NW
MIBK NS-NW

MW-22
Acetone NS-NW
MEK NS-NW
MIBK NS-NW

MW-11
Acetone <500
MEK <500
MIBK <500

MW-8
Acetone <25
MEK <25
MIBK <25

④ FP (0.13')

④ FP (0.06')

FP (0.20')

MW-12
Acetone <5
MEK <5
MIBK <5

## DATES OF SURVEY

DECEMBER 18, 2002  
MAY 27, 2003  
JULY 25, 2003

Prepared by:  
Clean Soil, Inc.  
4359 Phelan Road, Phelan, CA 92371

Acetone, MEK and MIBK Concentrations in First Water ( $\mu\text{g/L}$ )

Former Angeles Chemical Company, 8915 Sorensen Ave., Santa Fe Springs, CA 90670

FIGURE

13



## Legend

- MONITORING WELL
- RAILROAD TRACKS
- CHAIN LINK FENCE

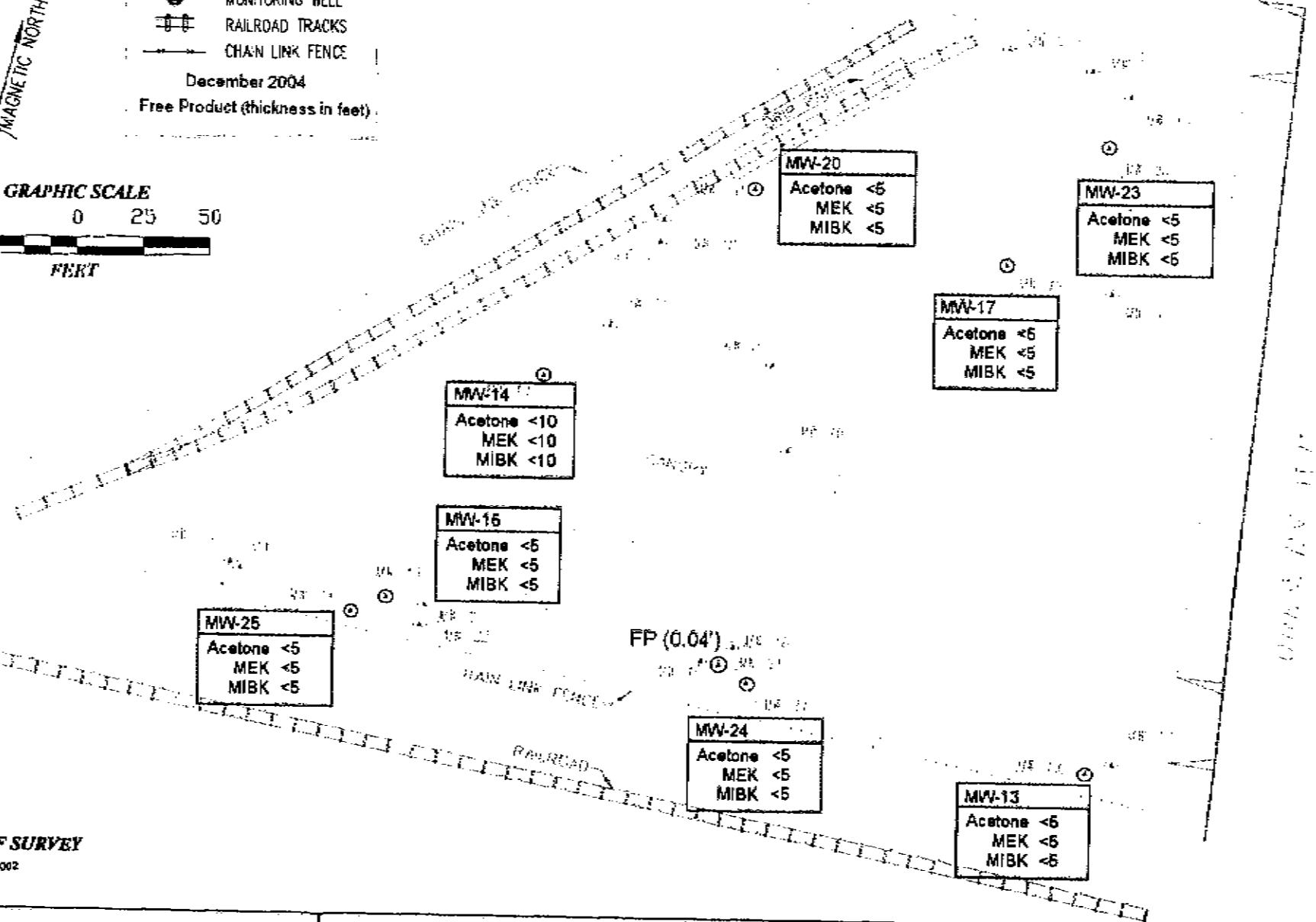
December 2004

Free Product (thickness in feet)

## GRAPHIC SCALE



FEET



## DATES OF SURVEY

DECEMBER 18, 2002  
MAY 27, 2003  
JULY 25, 2003

Prepared by:  
Clean Soil, Inc.  
4359 Phelan Road, Phelan, CA 92371

Acetone, MEK and MIBK Concentrations in Upper and Lower A1 Zones ( $\mu\text{g/L}$ )

Former Angeles Chemical Company, 8915 Sorensen Ave., Santa Fe Springs, CA 90670

FIGURE

14



1/2

## WELL GAUGING DATA

Project # 041215-131 Date 12/15/04 Client Blatchly

Site B715 Sorenson Ave San Jose

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscible Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC
MW-4	4		26.43			26.47	—	TOC
MW-6	4					29.80	—	
MW-8	4		36.89			36.02	—	
MW-9	4					41.69	45.93	
MW-10	4		35.57			35.63	—	
MW-11	2					36.26	39.84	
MW-12	2					36.32	46.05	
MW-13	2					51.18	62.42	
MW-14	2					52.71	63.46	
MW-15	2					53.18	64.60	
MW-16	2		40.33			40.34	—	
MW-17	2					49.57	66.32	
MW-18	2		40.30			40.50	—	
MW-19	2		37.07			37.23	—	
MW-20	2					50.59	67.24	
MW-21	2		51.68			51.62	—	
MW-22	2				Dry	40.16		

2/2

## WELL GAUGING DATA

Project # 04/215-AB1 Date 12/15/04 Client Bethany

Site \_\_\_\_\_

**Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7558**

## TEST EQUIPMENT CALIBRATION LOG



### WELL MONITORING DATA SHEET

Project #:	Φ4/215~44/	Site:	Angeles Chemical Co.
Sampler:	M3	Date:	12/15/04
Well I.D.:	MW-15	Well Diameter:	① 3 4 6 8
Total Well Depth (TD):	64.60	Depth to Water (DTW):	53.18
Depth to Free Product:		Thickness of Free Product (feet):	
Referenced to:	PVC Grade	Flow Cell Type	V.S.I. SS6 MIS
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:		55.46	

Purge Method:	Bailer	Water	Sampling Method:	Bailer
Disposable Bailer	2" Rediflo pump	Extraction Pump	Disposable Bailer	
Positive Air Displacement	Extraction Pump	Dedicated Tubing	Extraction Port	
Electric Submersible	Other _____	Other _____	Dedicated Tubing	
Flow Rate:	10 gpm	Well Diameter	Well Diameter	
1.8 (Gals.) X	3 = 54 Gals.	Multiplier	Multiplier	
1 Gals. Volume	Specified Volumes	Calculated Volume	radius <sup>2</sup> * 0.163	

Time	Temp (°F)	pH	Cond. ppm or µS	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Gals. Removed	Observations
1428	22.33	6.7	1727	768	0.16	-173	2	Black / odor
1430	23.20	6.6	1729	128	0.10	-155	4	odor
1432	23.17	6.6	1725	35	0.08	-145	6	odor

Did well dewater? Yes  No Gallons actually evacuated: 6

Sampling Date: 12/15/04 Sampling Time: 1445 Depth to Water: 53.60

Sample I.D.: MW-15 Laboratory: STS

Analyzed for: Other:

EB I.D. (if applicable): EB-1 @ 1420 Duplicate I.D. (if applicable): MW-1 @ 1430

FB I.D. (if applicable): @ Analyzed for:

D.O. (if req'd):	Pre-purge:	mV	Post-purge:	mV
------------------	------------	----	-------------	----

O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV
--------------------	------------	----	-------------	----

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7555

## WELL MONITORING DATA SHEET

Project #:	041215-AS 1	Site:	Angeles Chemical Co.
Sampler:	AS	Date:	12/15/04
Well I.D.:	MW-13	Well Diameter:	2 3 4 6 8
Total Well Depth (TD):	62.42	Depth to Water (DTW):	51.18
Depth to Free Product:		Thickness of Free Product (feet):	
Referenced to:	(VS) Grade	Flow Cell Type:	VST 556 mP5
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:		53.42	

Purge Method: Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible  
 Other \_\_\_\_\_

Water: 2" Nodiflo pump  
 Extraction Pump  
 Other \_\_\_\_\_

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Dedicated Tubing  
 Other \_\_\_\_\_

Flow Rate = 1.0 gpm

1.8 (Gals.) X 3 = 5.4 Gals.

1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multplier	Well Diameter	Multplier
1"	0.04	4"	0.43
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.143

Time	Temp (°F)	pH	Cond. (mg/L or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Gals. Removed	Observations
839	72.82	6.4	1.742	>1000	4.35	120	2	
841	73.02	6.5	1.746	482	4.18	110	4	
843	73.08	6.6	1.750	269	4.14	105	6	

Did well dewater? Yes  No Gallons actually evacuated: 6

Sampling Date: 12/15/04 Sampling Time: 855 Depth to Water: 51.18

Sample I.D.: MW-13 Laboratory: STS

Analyzed for: Other:

EB I.D. (if applicable):  Duplicate I.D. (if applicable):FB I.D. (if applicable):  Analyzed for:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7555

**WELL MONITORING DATA SHEET**

Project #: 041215-AS1	Site: Angeles Chemical Co.
Sampler: AS	Date: 12/15/04
Well I.D.: MW-20	Well Diameter: ② 3 4 6 8
Total Well Depth (TD): 67.24	Depth to Water (DTW): 50.59
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: GND	Grade: Flow Cell Type VST 556mPS
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 53.92	

Purge Method: Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible

Water: 2" Rodline pump  
 Extraction Pump  
 Other \_\_\_\_\_

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Dedicated Tubing

Other: \_\_\_\_\_

Flow Rate: 1.0 gpm

$$\frac{2.7 \text{ (Gals.)}}{1 \text{ Case Volume}} \times \frac{3}{\text{Specified Volumes}} = \frac{8.1}{\text{Calculated Volume}}$$

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.63
2"	0.16	5"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (F)	pH	Cond. (mS or <del>DS</del> )	Turbidity (NTU's)	D.O. (mg/L)	ORP (mV)	Gals. Removed	Observations
11:58	23.19	6.4	1835	71000	3.26	150	3	
12:03	23.07	6.5	1841	517	4.60	119	6	
12:06	23.06	6.5	1843	143	4.63	110	9	

Did well dewater? Yes  Gallons actually evacuated: 9

Sampling Date: 12/15/04 Sampling Time: 12:20 Depth to Water: 50.42

Sample I.D.: MW-20 Laboratory: 575

Analyzed for: Other:

EB I.D. (if applicable):  Duplicate I.D. (if applicable):

FB I.D. (if applicable):  Analyzed for:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7558

### WELL MONITORING DATA SHEET

Project #:	04/215-AB1	Site:	Angeles Chemical Co.
Sampler:	RP	Date:	12/16/04
Well I.D.:	MW-14	Well Diameter:	2 3 4 6 8
Total Well Depth (TD):	63.46	Depth to Water (DTW):	52.71
Depth to Free Product:		Thickness of Free Product (feet):	
Referenced to:	PVC	Grade:	Flow Cell Type ✓ 9.7 556 MPS
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:		54.86	

Purge Method:	Baller Disposable Baller Positive Air Displacement Electric Submersible	Water Radial pump External Pump Other _____	Sampling Method: Baller Disposable Baller Extraction Port Dedicated Tubing Other _____																
Flow Rate:	1.0 gpm																		
1.7 (Gals.) X 3 = 5.1 Gals.			<table border="1"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>5"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td><math>\pi r^2 \times 0.165</math></td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	5"	1.47	3"	0.37	Other	$\pi r^2 \times 0.165$
Well Diameter	Multiplier	Well Diameter	Multiplier																
1"	0.04	4"	0.65																
2"	0.16	5"	1.47																
3"	0.37	Other	$\pi r^2 \times 0.165$																
I.Case Volume	Specified Volumes	Calculated Volume																	

Time	Temp (°F)	pH	Cond. ( $\mu\text{S}$ or $\mu\text{S}$ )	Turbidity (NTU's)	D.O. (mg/L)	ORP (mV)	Gals. Removed	Observations
925	22.60	6.8	1.495	571	6.35	100	2	
927	22.74	6.8	1.503	191	6.28	98	4	
929	22.80	6.8	1.507	101	6.45	95	6	

Did well dewater?	Yes	No	Gallons actually evacuated:	6
Sampling Date:	12/16/04	Sampling Time:	940	Depth to Water: 52.71
Sample I.D.:	MW-14	Laboratory:	STS	
Analyzed for:			Other:	
EB I.D. (if applicable):	EB-2	② 915 Time	Duplicate I.D. (if applicable):	MW-2 @ 945
FB I.D. (if applicable):		③ Time	Analyzed for:	
D.O. (if req'd):	Pre-purge:	mL	Post-purge:	mL
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

Elaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7558

**WELL MONITORING DATA SHEET**

Project #:	041215-#87	Site:	Angeles Chemical Co.
Sampler:	#3	Date:	12/15/04
Well I.D.:	MW-12	Well Diameter:	② 3 4 6 8
Total Well Depth (TD):	46.05	Depth to Water (DTW):	36.32
Depth to Free Product:		Thickness of Free Product (feet):	
Referenced to:	(PVC)	Flow Cell Type	VST 556 MPS
DTW with 30% Recharge [(Height of Water Column x 0.20) + DTW]: 38.26			

Purge Method:	Baller Disposable Baller Positive Air Displacement Electric Submersible	Wetter Radial pump Extraction Pump Other _____	Sampling Method: Baller Disposable Baller Extraction Port Dedicated Tubing Other _____
Flow Rate:	1.0 gpm		Well Diameter: 1" 0.04 4" 0.63 2" 0.16 6" 1.47 3" 0.37 Other $\pi r^2 = 0.163$
1.6 (Gals.) X	5 = 4.8 Gals.		
1 Case Volume	Specified Volumes	Calculated Volume	

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Gals. Removed	Observations
1000	23.03	6.9	1.103	>1000	0.09	-150	2	Black sediment
1011	23.51	7.0	1.030	>1000	1.80	-143	4	Black/odor
1012	23.51	7.0	1.030	>1000	1.80	-143	5	Black/odor
1014	23.40	6.9	1.016	162	1.81	-128		

Did well dewater? Yes  No Gallons actually evacuated: 5  
 Sampling Date: 12/16/04 Sampling Time: 1025 Depth to Water: 36.63

Sample I.D.: MW-12 Laboratory:

Analyzed for: Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

FB I.D. (if applicable): @ Time Analyzed for:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

Blaine Tech Services, Inc. 1880 Rogers Ave., San Jose, CA 95112 (800) 545-7555

### WELL MONITORING DATA SHEET

Project #:	69/215-04	Site:	Angeles Chemical Co.
Sampler:	AS	Date:	12/15/04
Well I.D.:	MW-11	Well Diameter:	10 3 4 6 8
Total Well Depth (TD):	39.84	Depth to Water (DTW):	36.26
Depth to Free Product:		Thickness of Free Product (feet):	
Referenced to:	PVC	Grade:	Flow Cell Type YSI 556 MRS
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 36.97			

Purge Method:	Bailer Disposable Bailer Positive Air Displacement Electric Submersible Other: 0.25	Water Reciprocating pump Extraction Pump Other _____	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: _____
Flow Rate:	X 1.7 gpm	0.6 (Gals.) X 3 = 1.8 Gals.	Well Diameter Multiplier Wall Diameter Multiplier 1" 0.04 4" 0.83 2" 0.15 6" 1.47 3" 0.37 Other $\pi r^2 \times 0.163$
1 Case Volume	Specified Volumes	Calculated Volume	

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)	Gals. Removed	Observations
1047	24.09	6.6	1.507	28	0.70	-120	0.75	odor
1052	23.83	6.5	1.549	30	0.18	-134	1.25	odor pump stored
1057	24.33	6.6	1.595	32	0.58	-116	2.0	

Did well dewater? Yes No Gallons actually evacuated: 2

Sampling Date: 12/16/04 Sampling Time: 110 Depth to Water: 36.93

Sample I.D.: MW-11 Laboratory:

Analyzed for: Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

FB I.D. (if applicable): @ Time Analyzed for:

D.O. (if req'd): Pre-purge: mg/L Post-purge: mg/L

O.R.P. (if req'd): Pre-purge: mV Post-purge: mV

**Blaire Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7558**

### WELL MONITORING DATA SHEET

Project #: 041215-Av	Site: Angeles Chemical Co.
Sampler: 143	Date: 12/15/04
Well I.D.: ML-9	Well Diameter: 2 3 ④ 6 8
Total Well Depth (TD): 45.93	Depth to Water (DTW): 41.69
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type YST 556 MPS
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 42.53	

Purge Method:  Bailer  Disposable Bailer  Positive Air Displacement  Electric Submersible  Waterman  Redline pump  Extraction Pump  Other \_\_\_\_\_ Sampling Method:  Bailer  Disposable Bailer  Extraction Port  Dedicated Tubing  Other \_\_\_\_\_

Flow Rate: 1.0 gpm

28 (Gals.) X	3	8.4 Gals.
1 Case Volume	Specified Volumes	Calculated Volumes

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.68
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp	pH	Cond. (mS or <del>mg</del> )	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Gals. Removed	Observations
1511	22.93	6.5	2274	43	0.93	-80	0.1	
1514	23.14	6.4	2267	58	0.10	-27	3	
1515	—	—	Well	dewatered	@ 4' gallons			
1125	21.64	6.9	2.075 mS 37	-89	-49	—		

Did well dewater?  Yes No Gallons actually evacuated: 4

Sampling Date: 12/16/04 Sampling Time: 1125 Depth to Water: 43.30

Sample I.D.: ML-9 Laboratory: STS

Other: \_\_\_\_\_

Analyzed for:

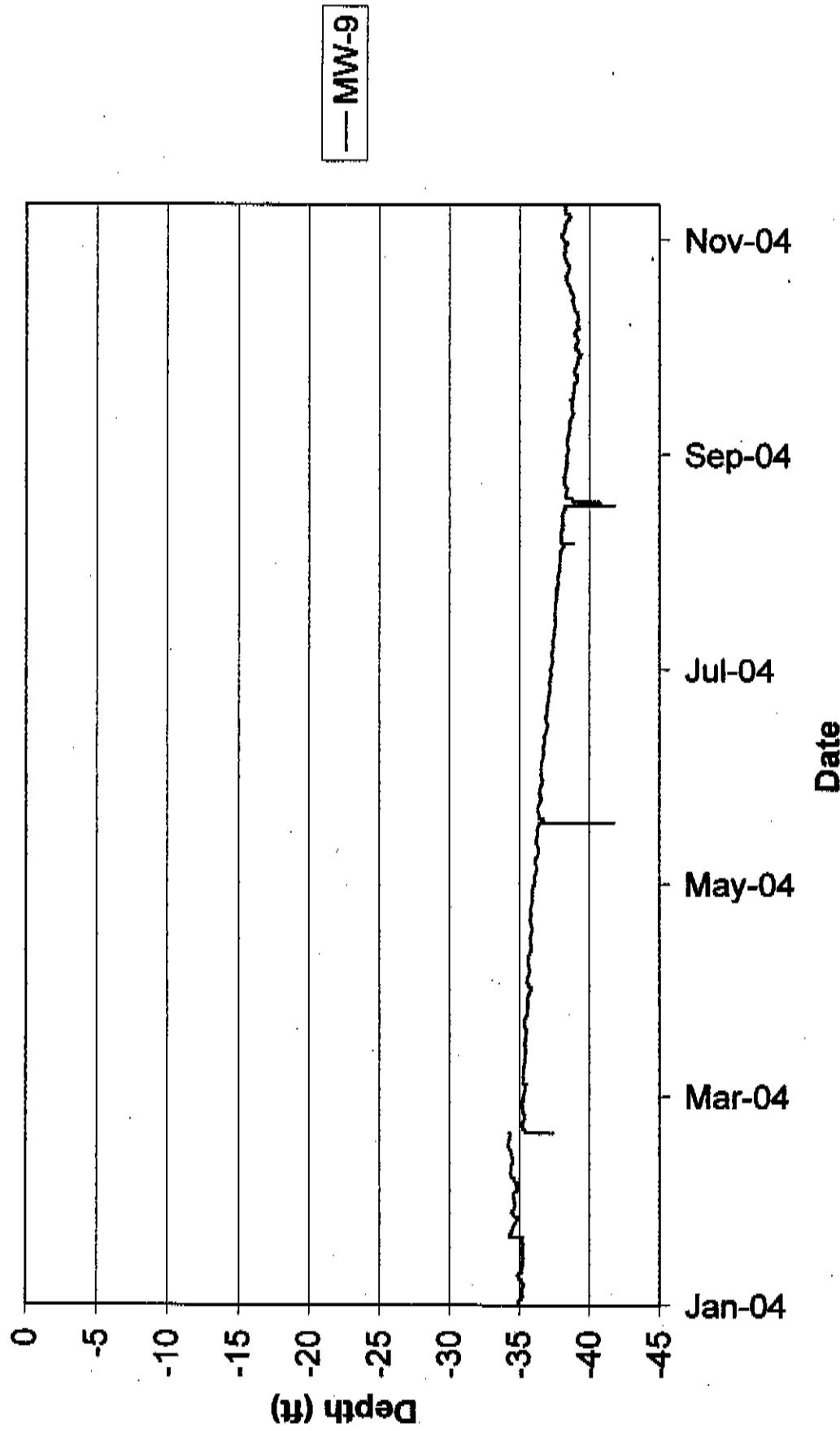
EB LD. (if applicable):  Duplicate I.D. (if applicable): \_\_\_\_\_

FB LD. (if applicable):  Analyzed for: \_\_\_\_\_

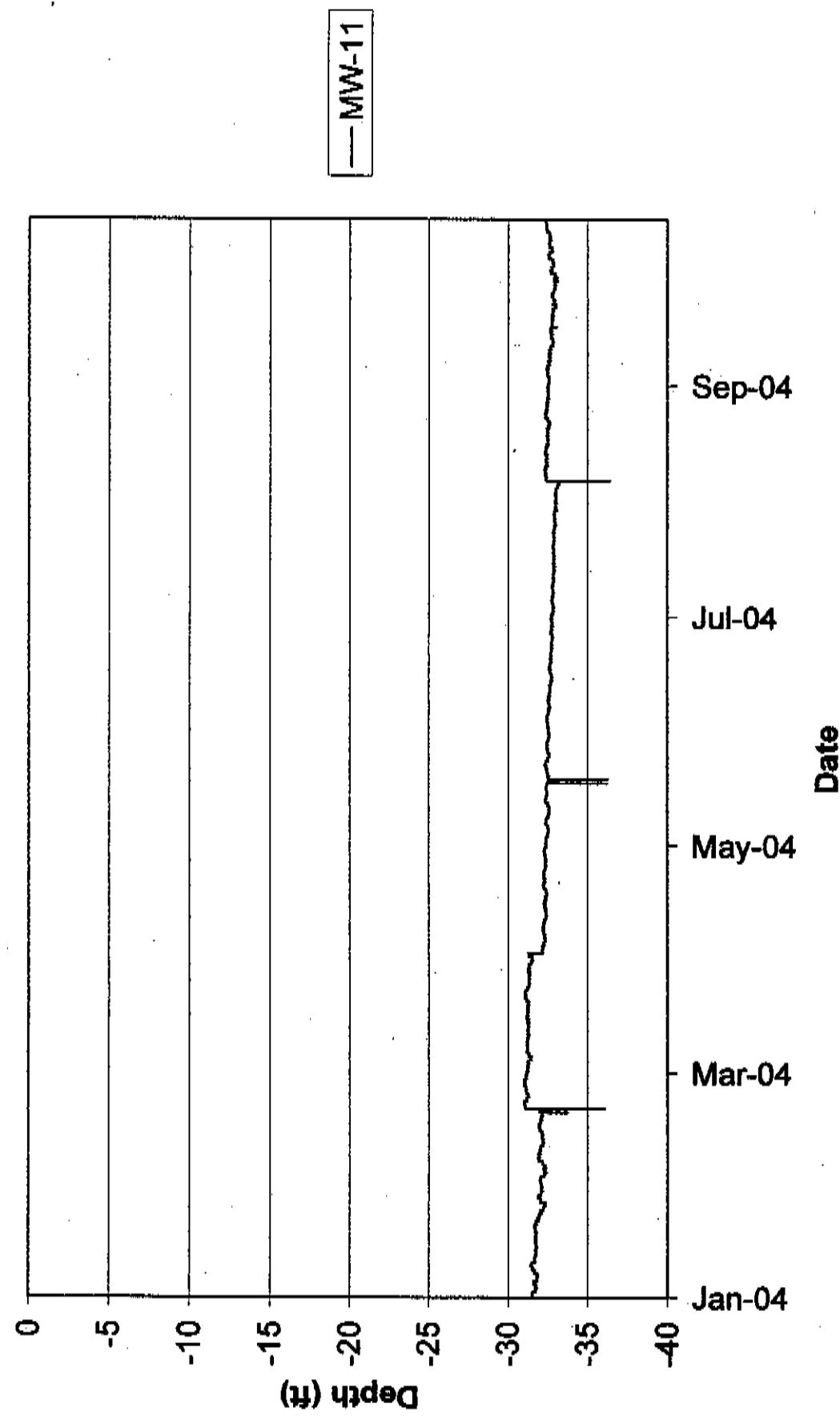
D.O. (if req'd):	Pre-purge: _____	Post-purge: _____
O.R.P. (if req'd):	Pre-purge: _____	mV

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7558

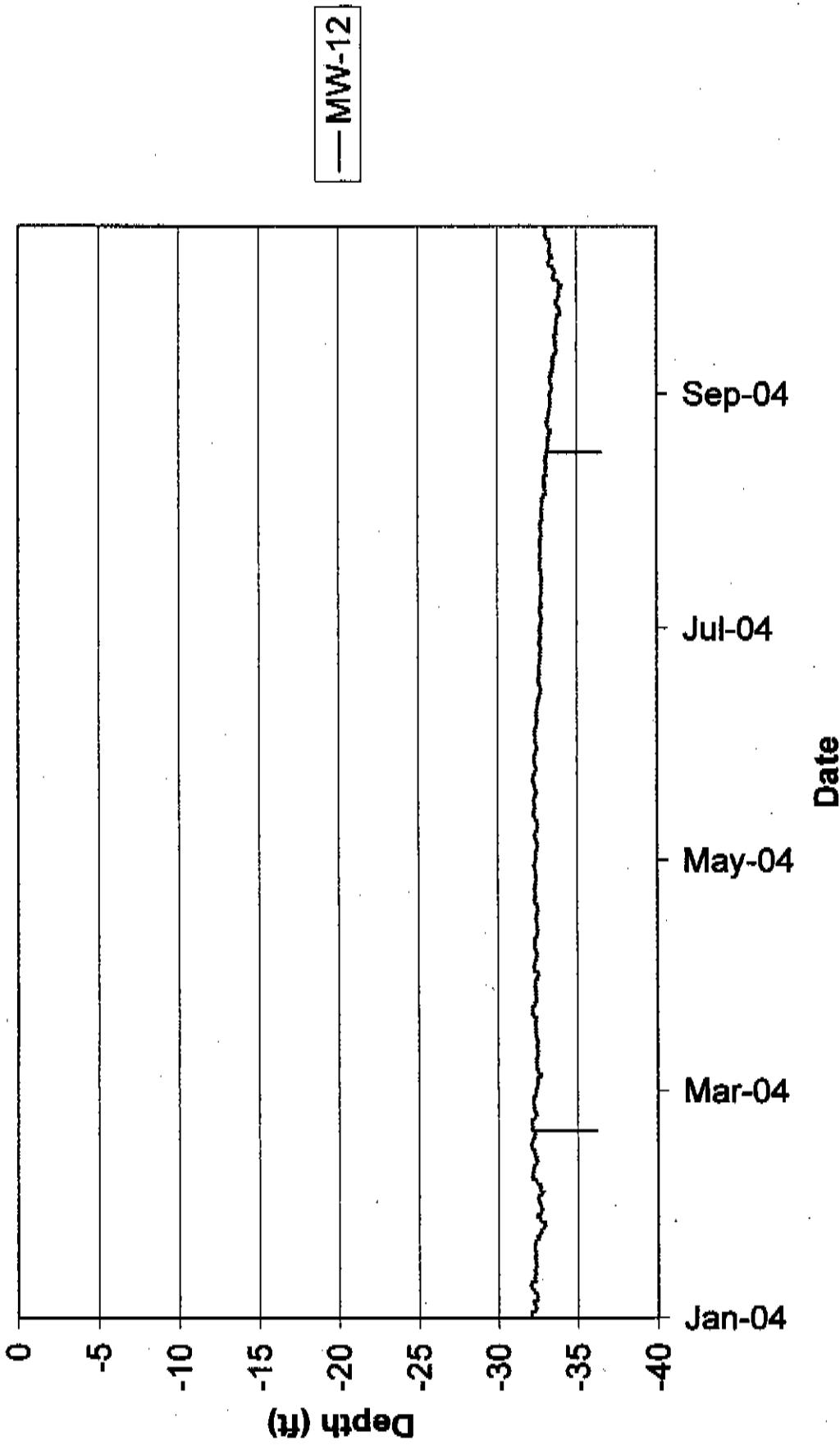
## MW-9 LevelLogger Measurements



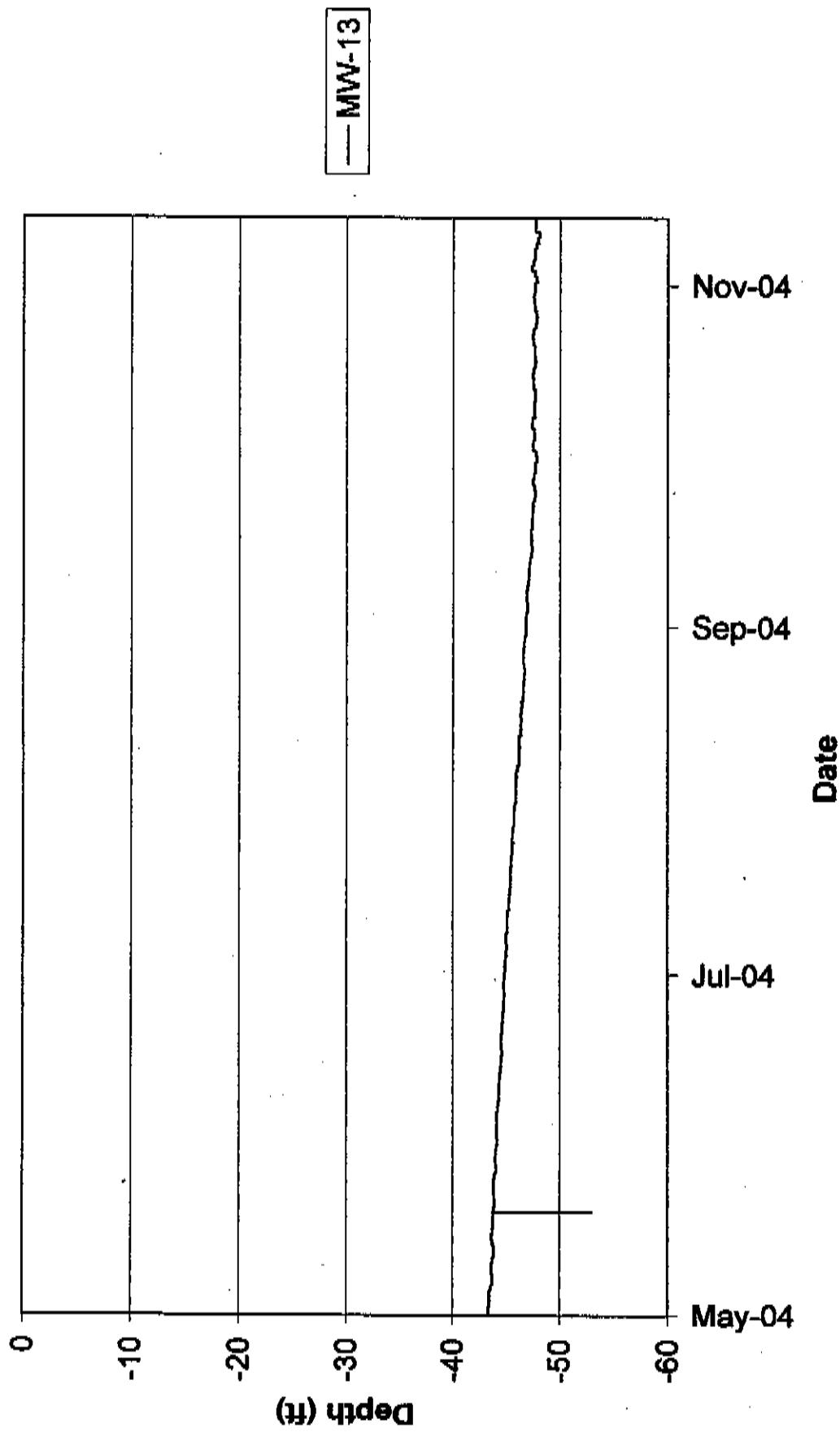
## MW-11 LevelLogger Measurements



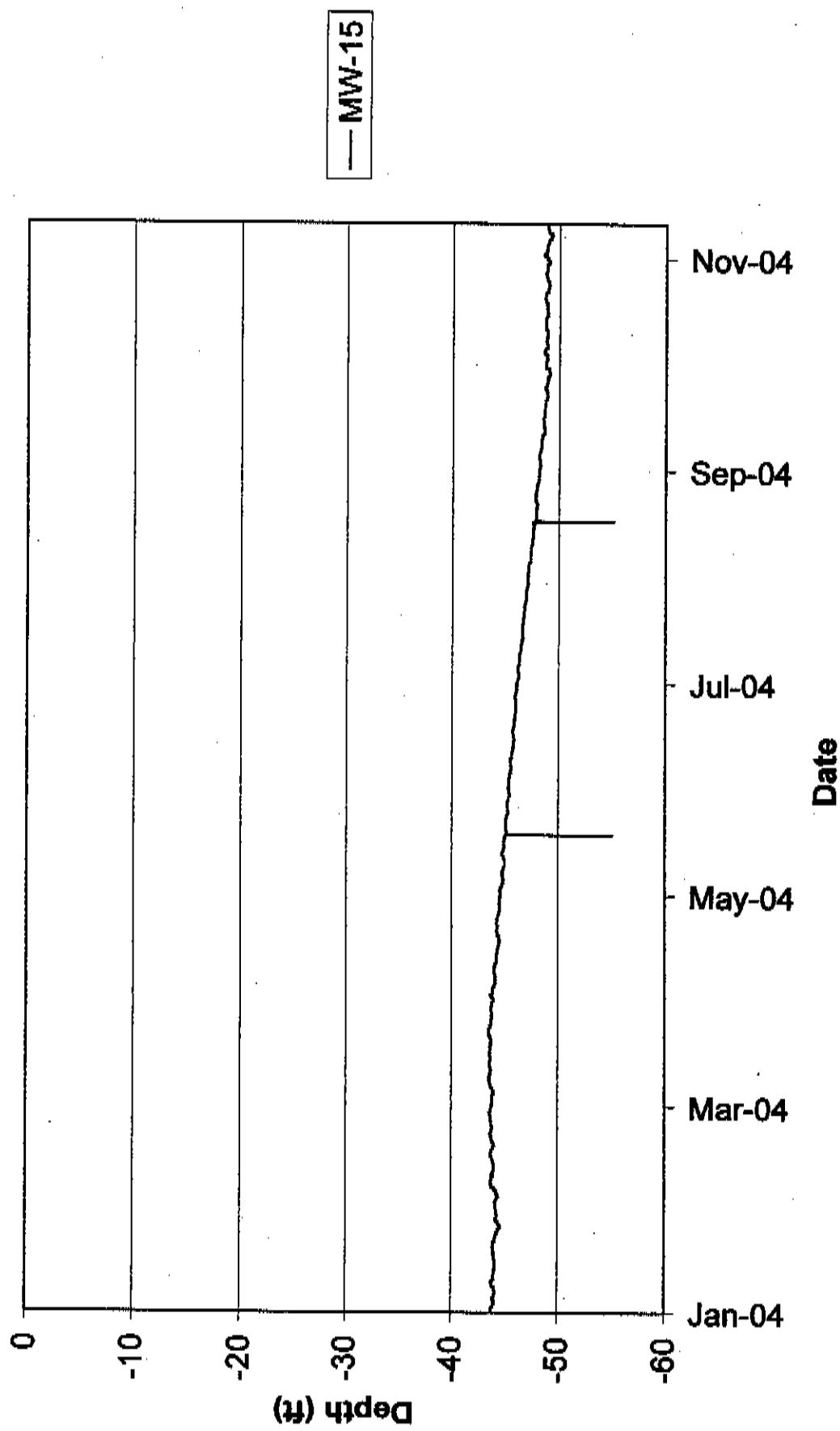
## MW-12 LevelLogger Measurements



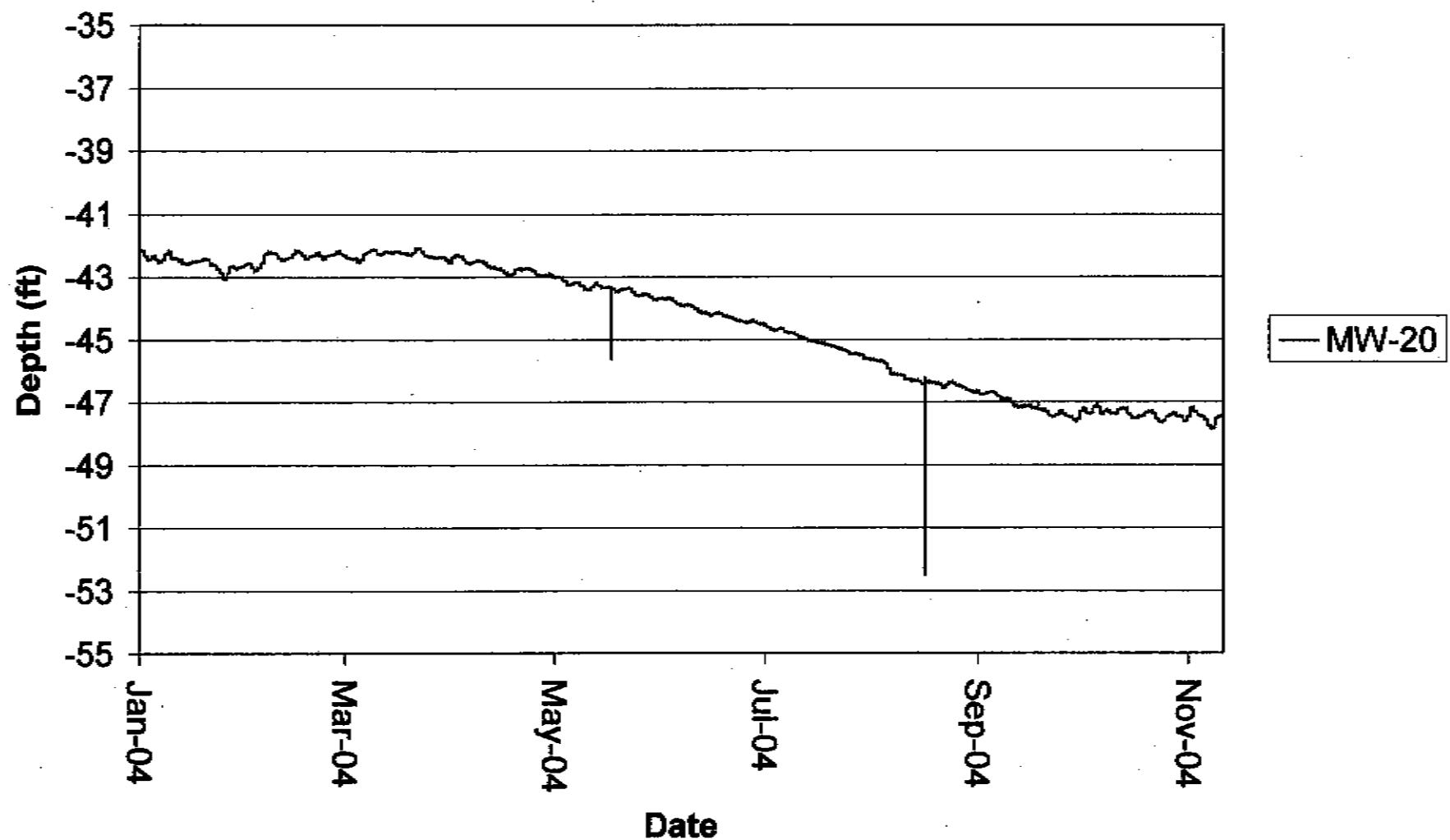
## MW-13 LeveLogger Measurements



## MW-15 LevelLogger Measurements

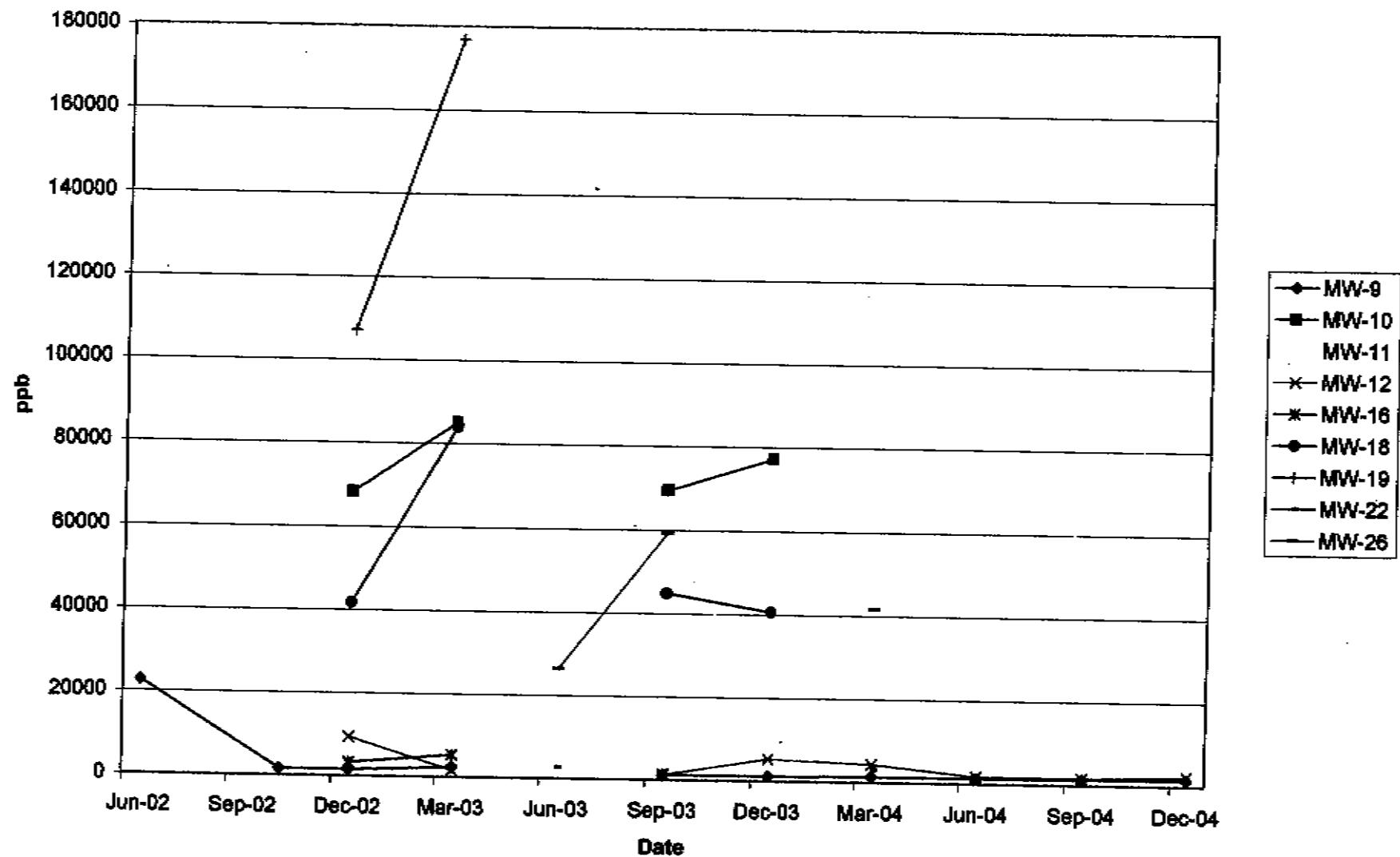


## MW-20 LeveLogger Measurements

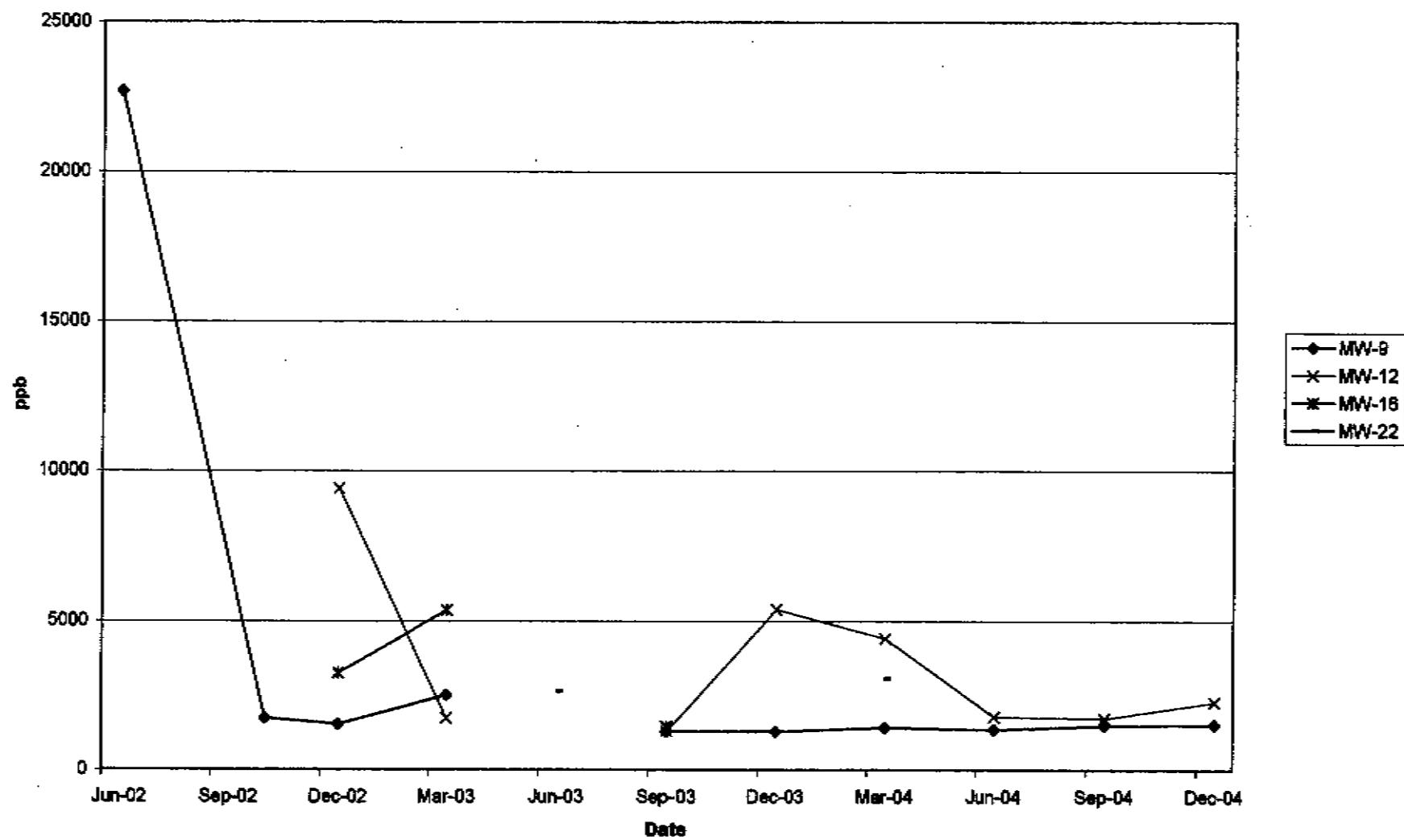


**APPENDIX  
B**

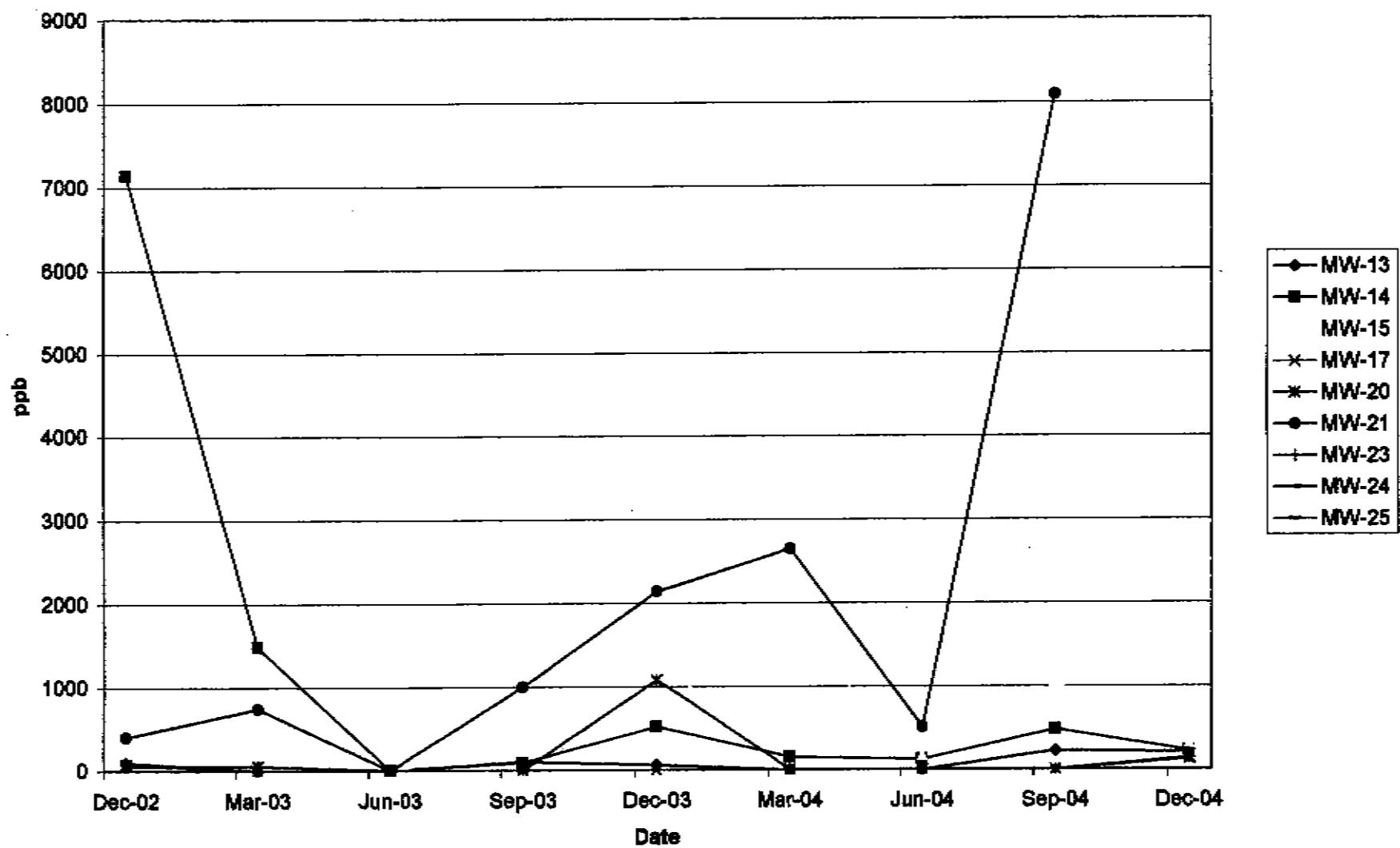
### Dissolved TPH-gas in 1st Water Wells



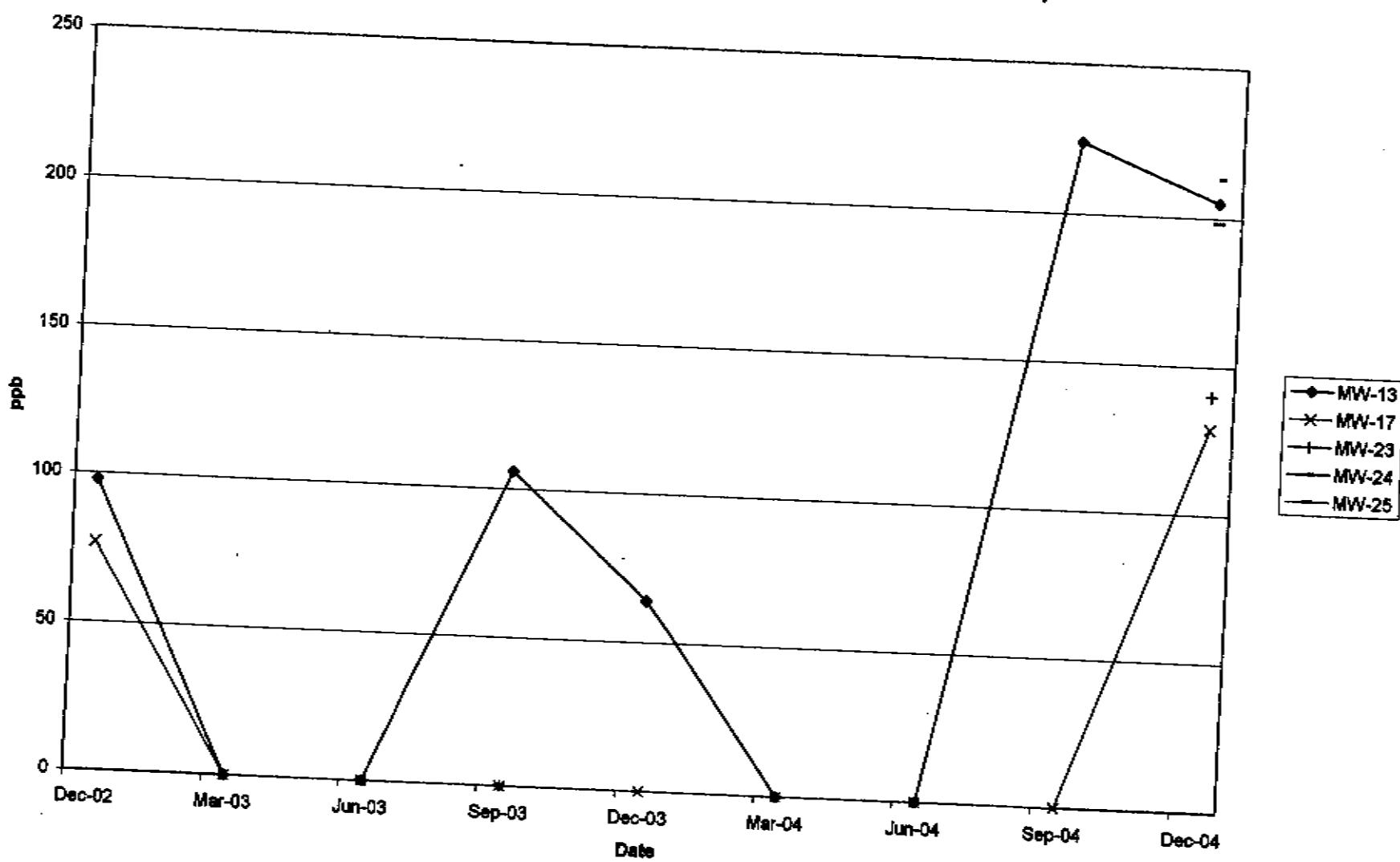
**Dissolved TPH-gas in 1st Water Wells**  
**(excluding MW-10, MW-11, MW-18, MW-19 and MW-26 for smaller scale)**



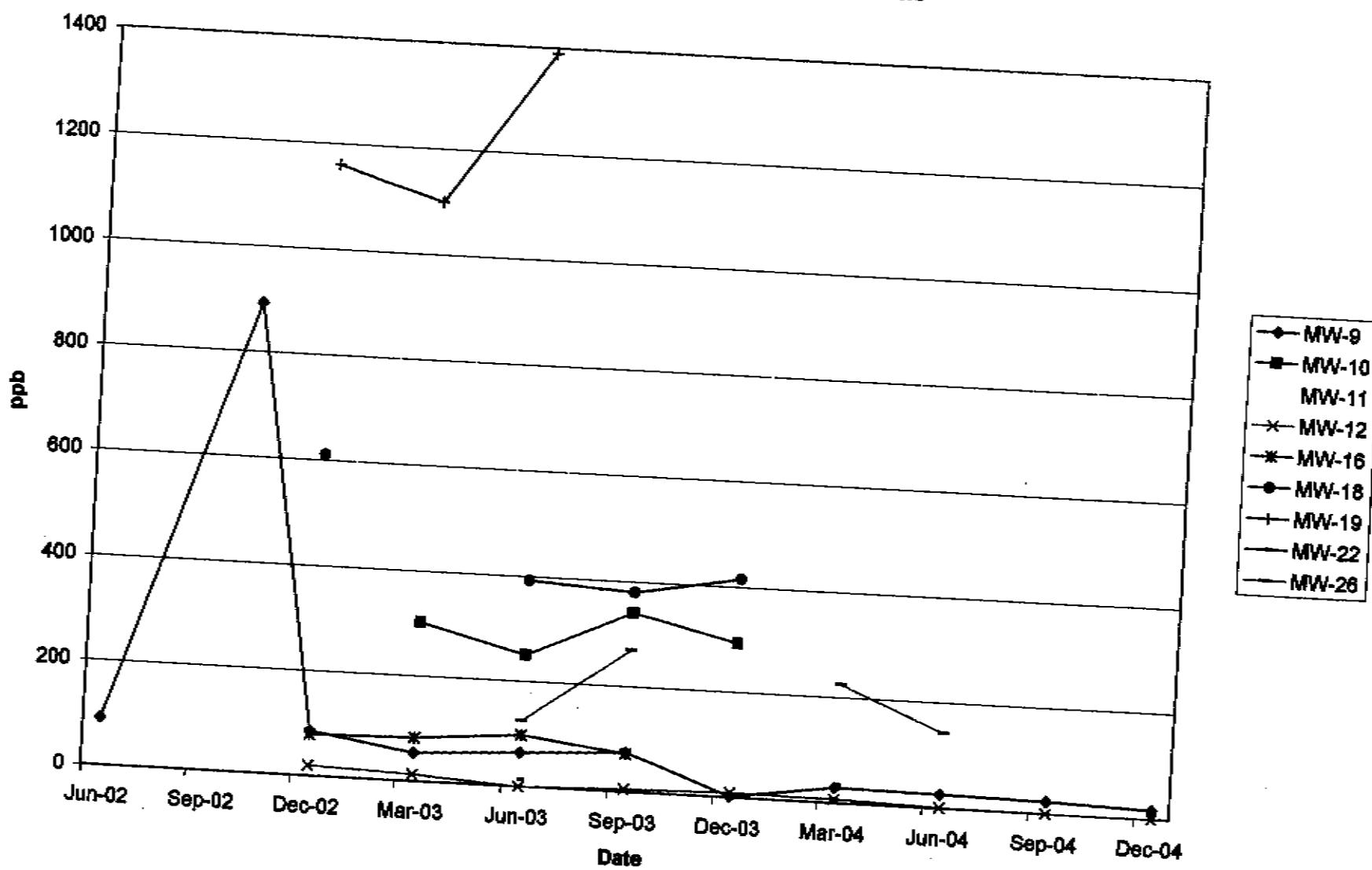
### Dissolved TPH-gas in A1 Wells



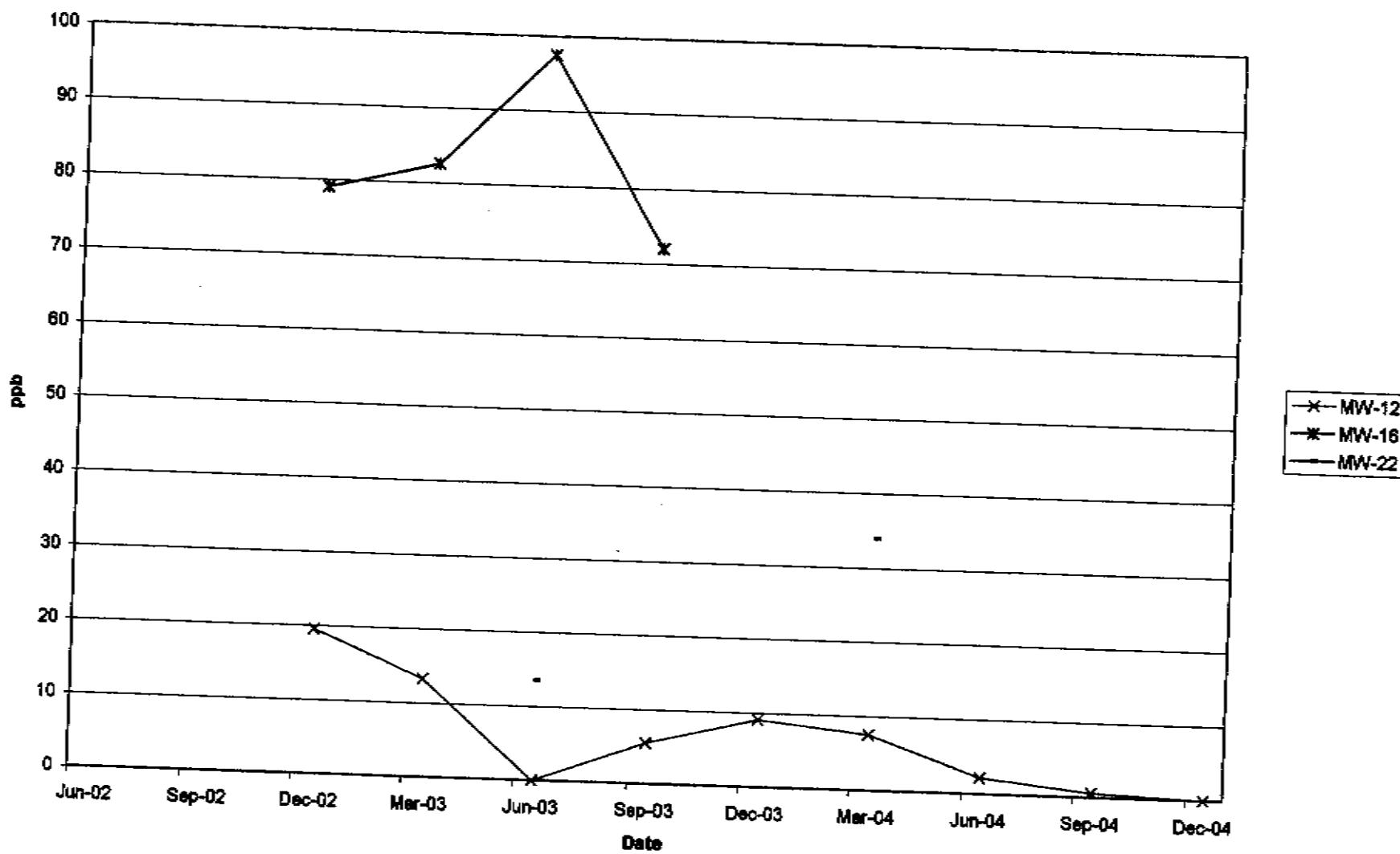
**Dissolved TPH-gas in A1 Wells**  
**(excluding MW-14, MW-15, MW-20 and MW-21 for smaller scale)**



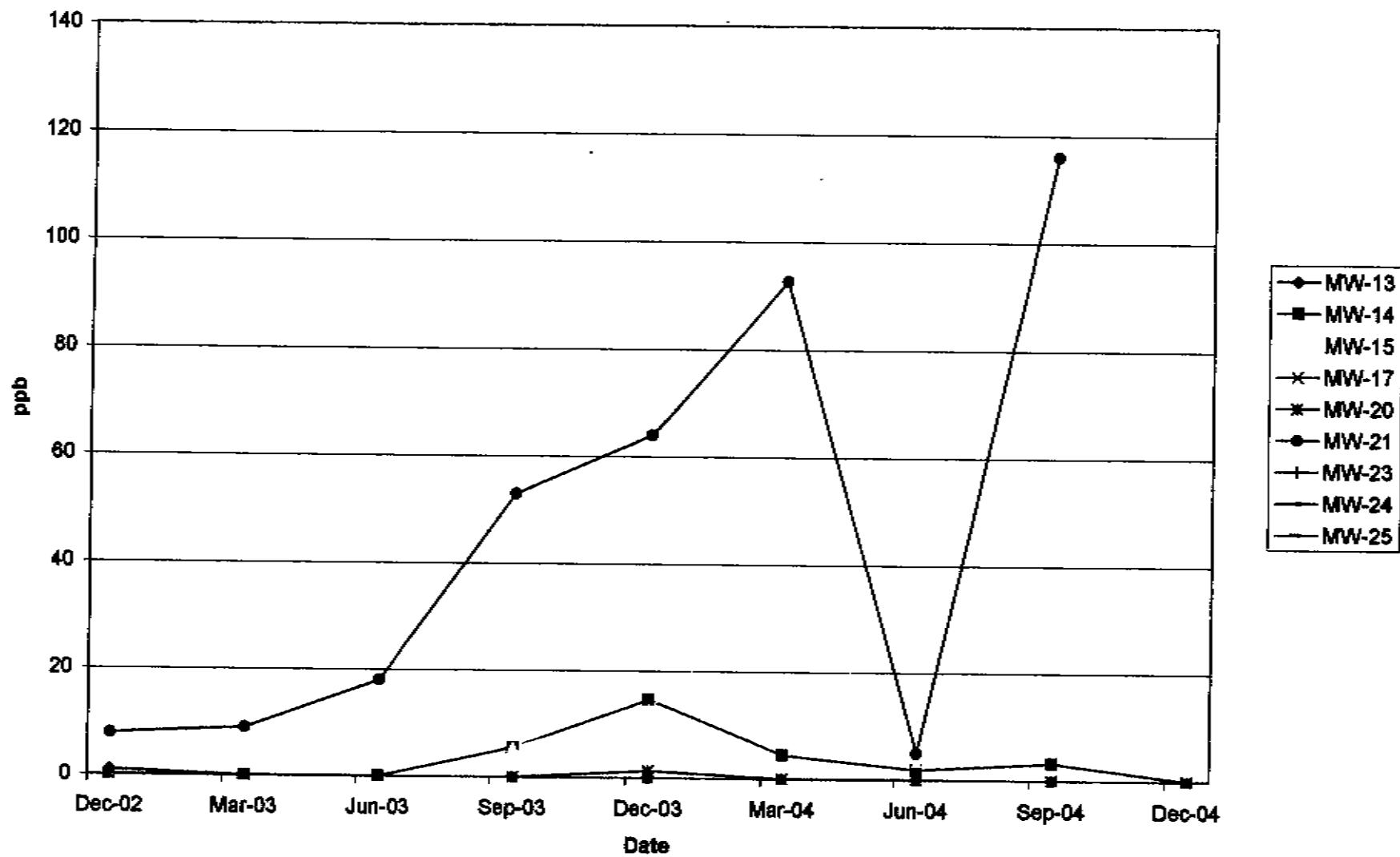
### Dissolved Benzene in 1st Water Wells



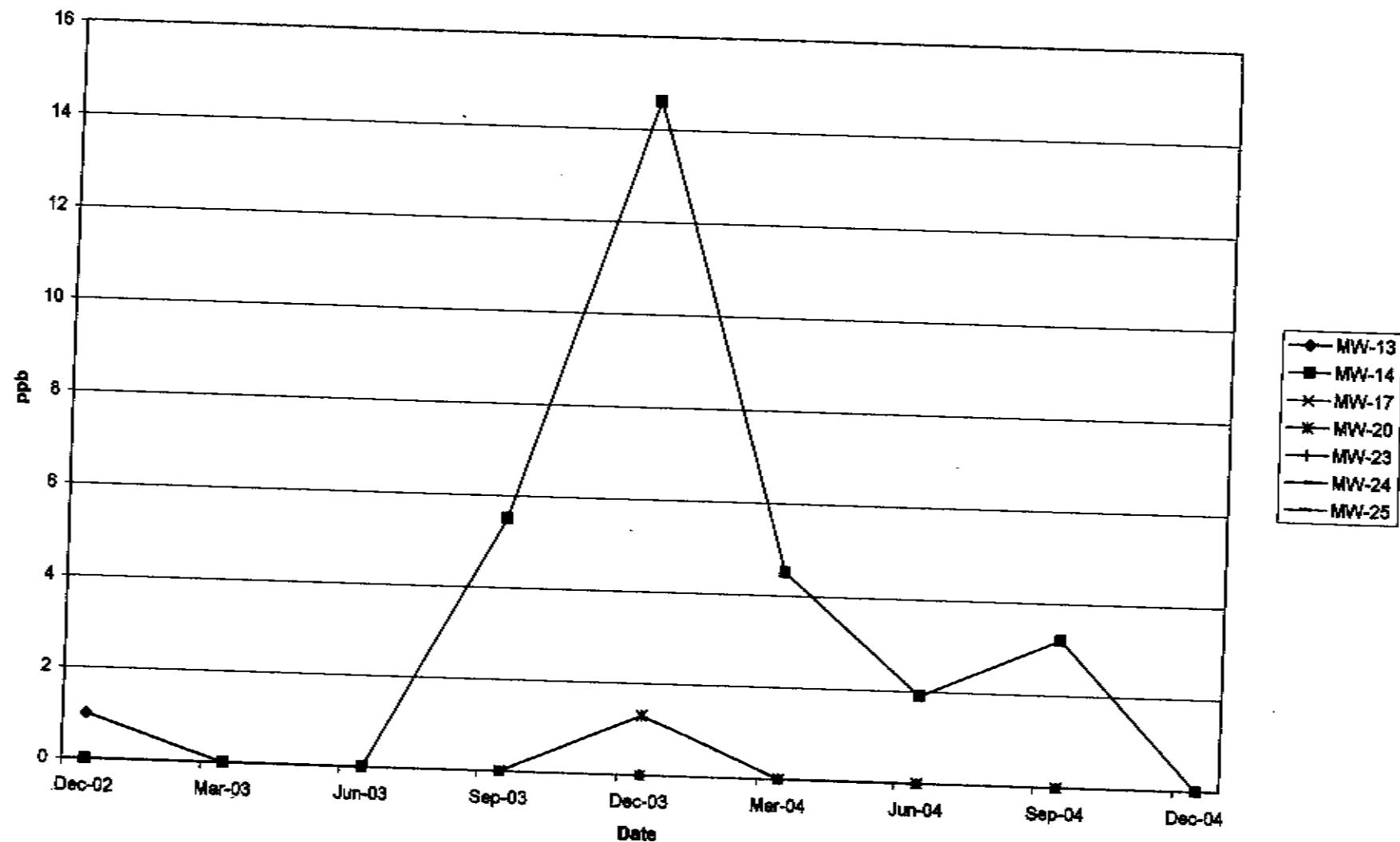
**Dissolved Benzene in 1st Water Wells**  
**(excluding MW-9, MW-10, MW-11, MW-18, MW-19 and MW-26 for smaller scale)**



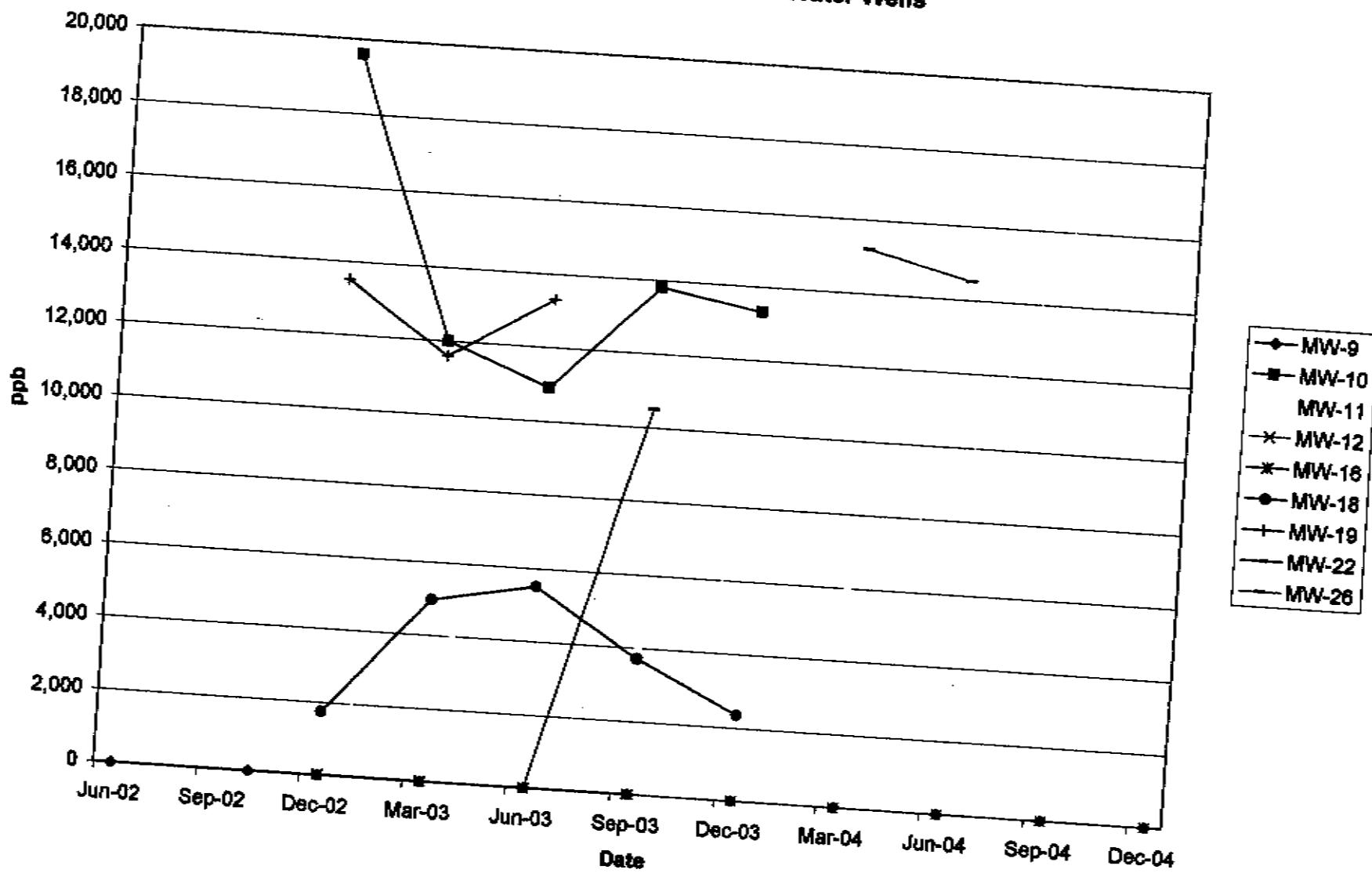
## Dissolved Benzene in A1 Wells



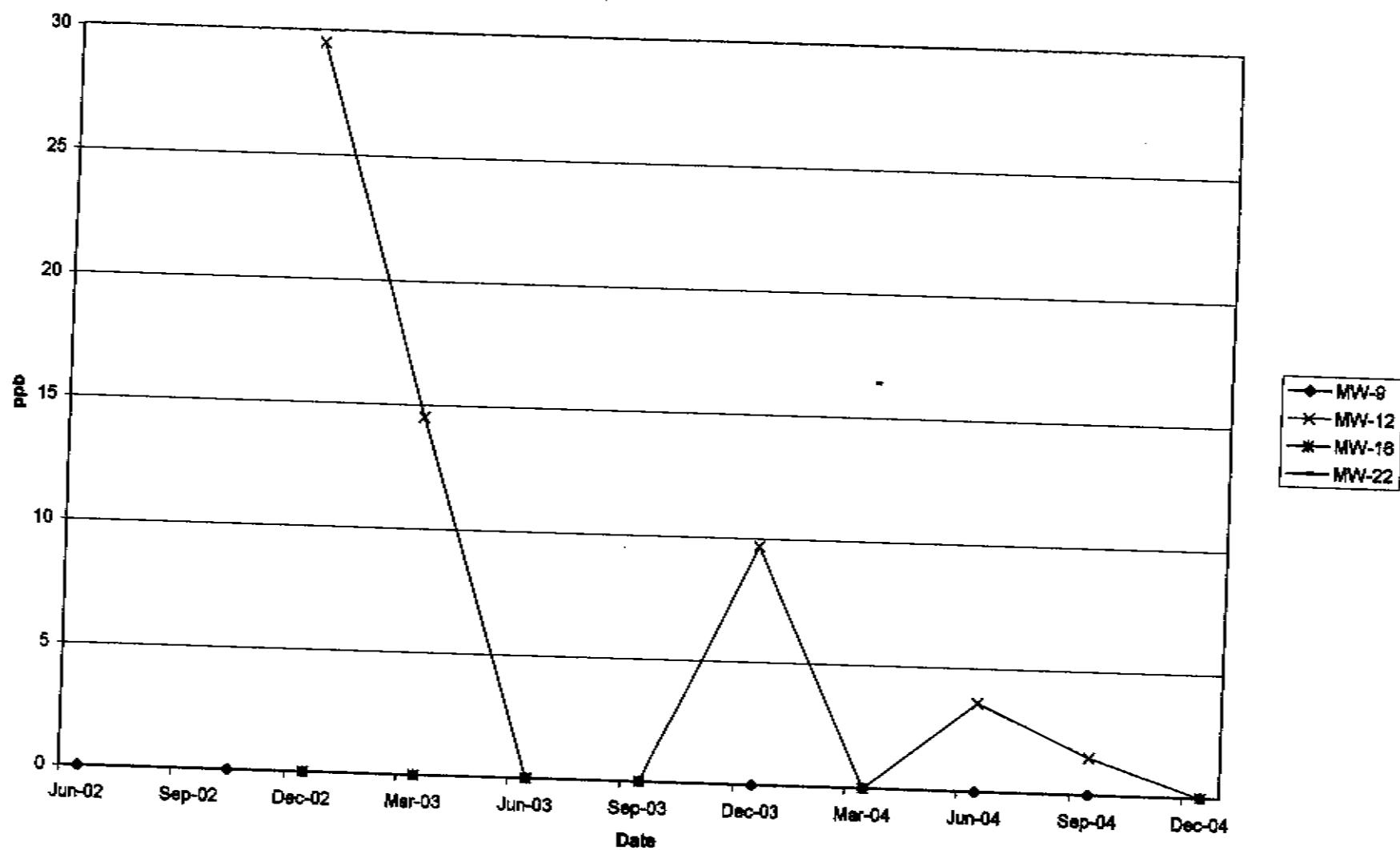
**Dissolved Benzene in A1 Wells**  
**(excluding MW-15 and MW-21 for smaller scale)**



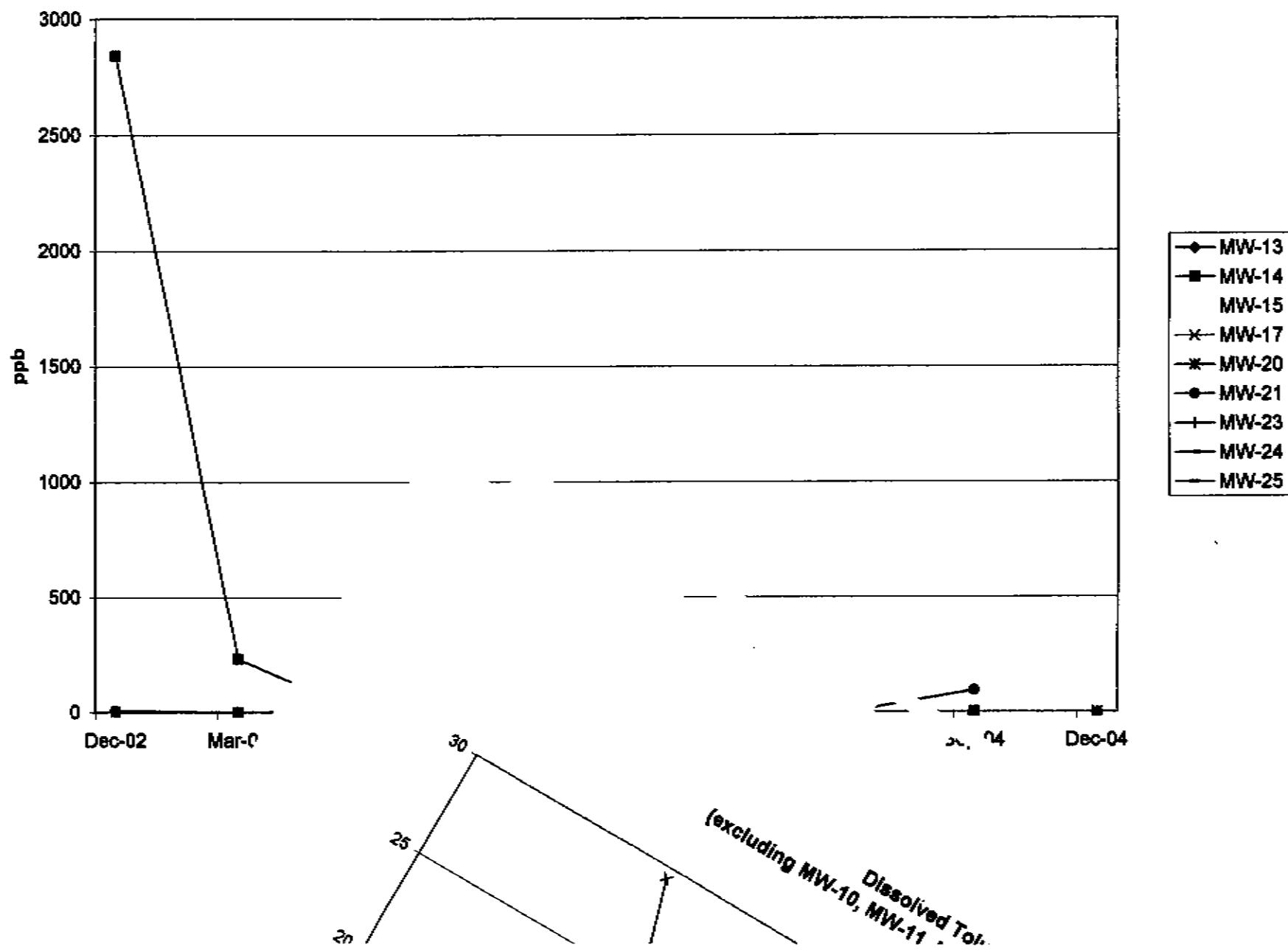
### Dissolved Toluene in 1st Water Wells



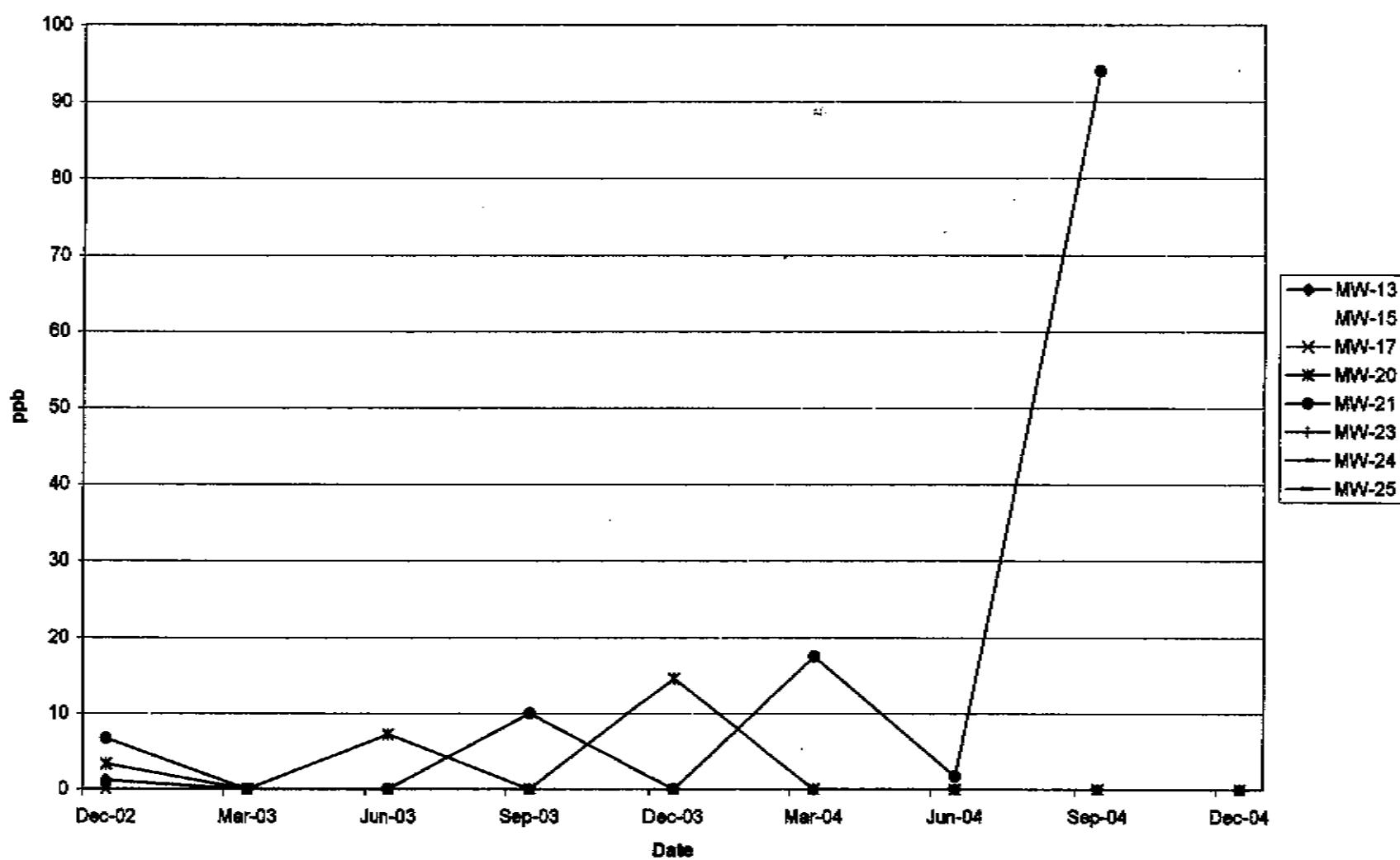
**Dissolved Toluene in 1st Water Wells**  
**(excluding MW-10, MW-11, MW-18, MW-19 and MW-26 for smaller scale)**



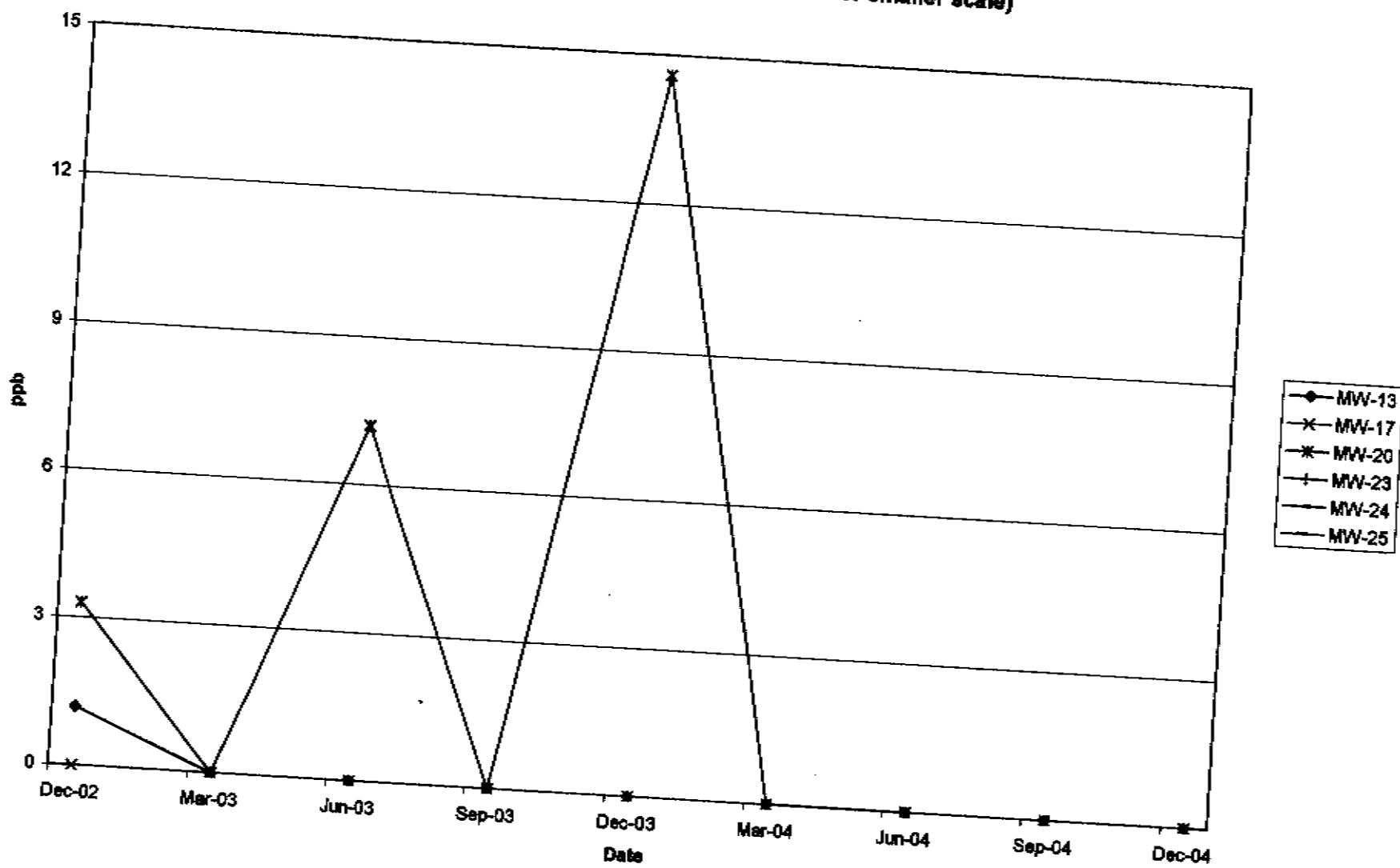
### Dissolved Toluene in A1 Wells



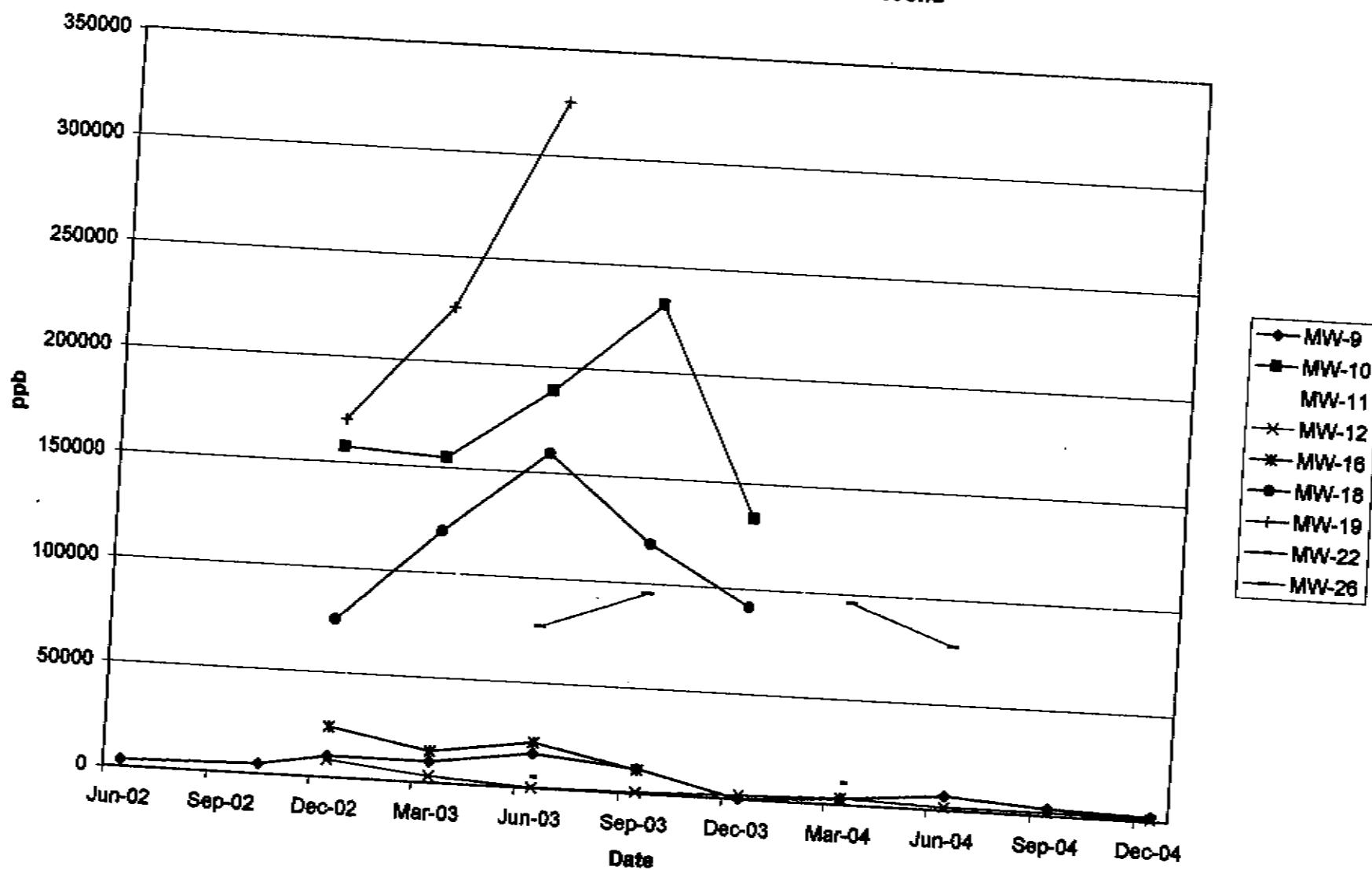
### Dissolved Toluene in A1 Wells (excluding MW-14 for smaller scale)



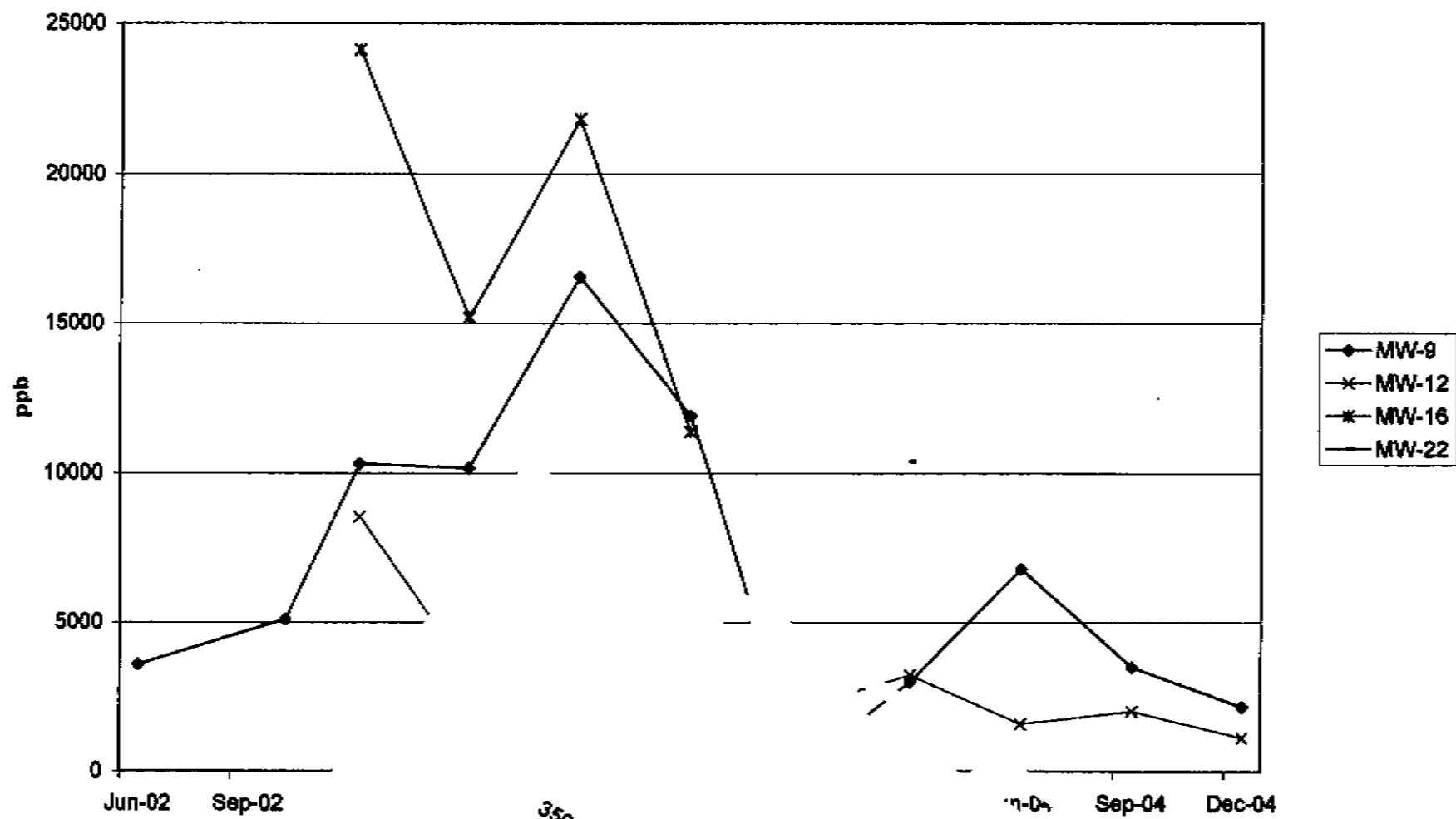
Dissolved Toluene in A1 Wells  
(excluding MW-14, MW-15 and MW-21 for smaller scale)



### Total Dissolved VOCs in 1st Water Wells

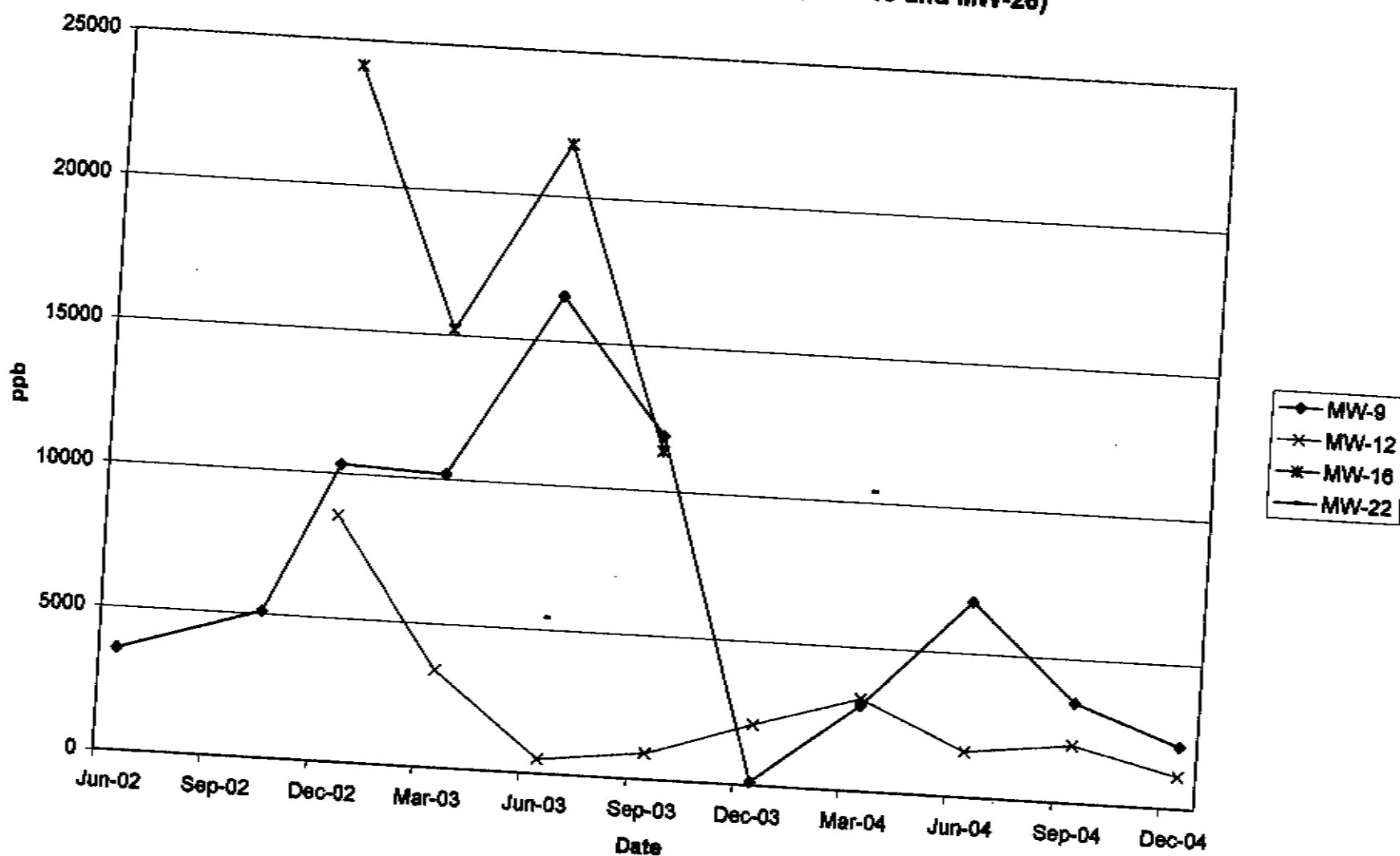


Total Dissolved VOCs in 1st Water Wells  
(excluding MW-10, MW-11, MW-18, MW-19 and MW-26)

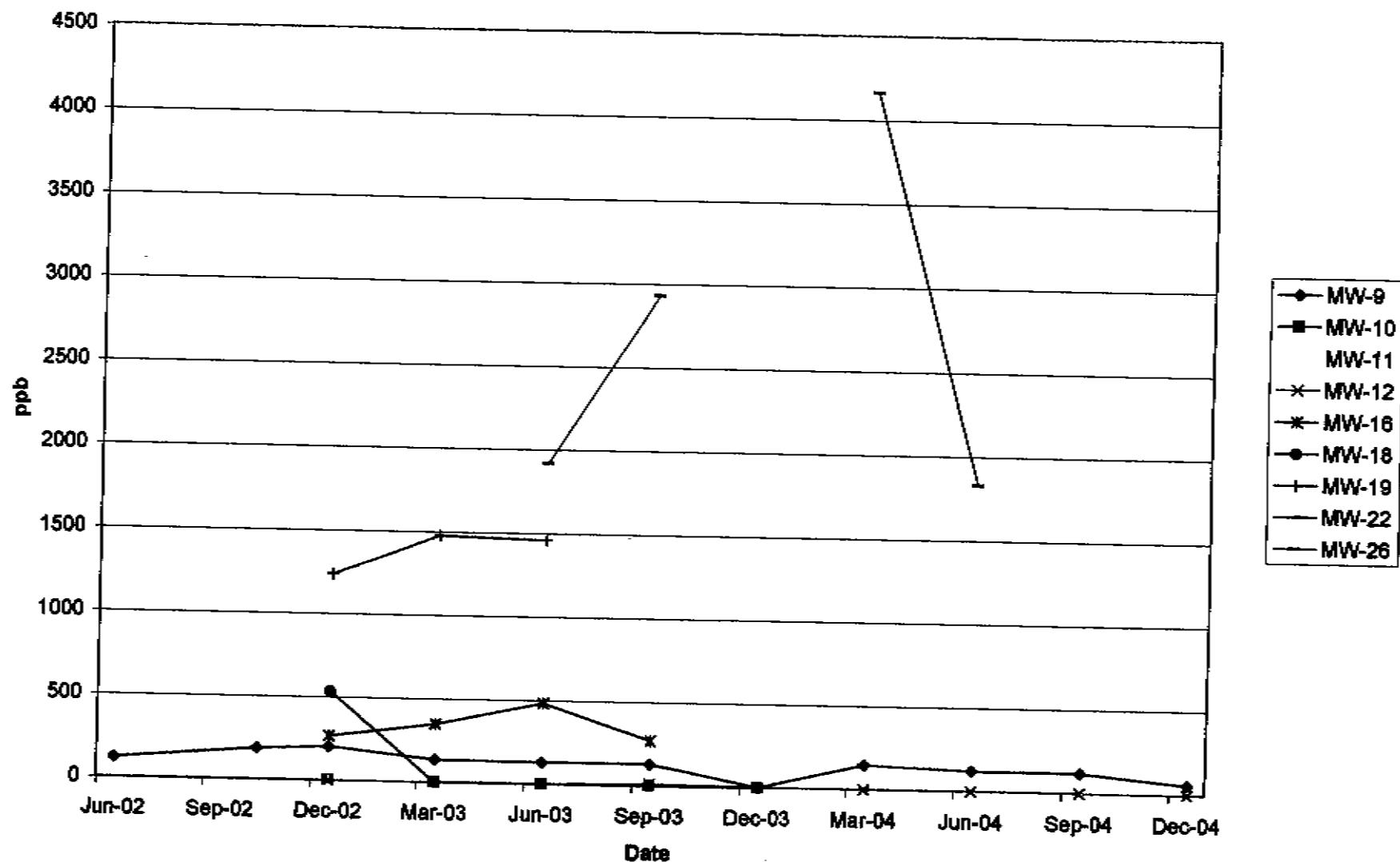


350000  
300000  
250000  
Total Dissolved

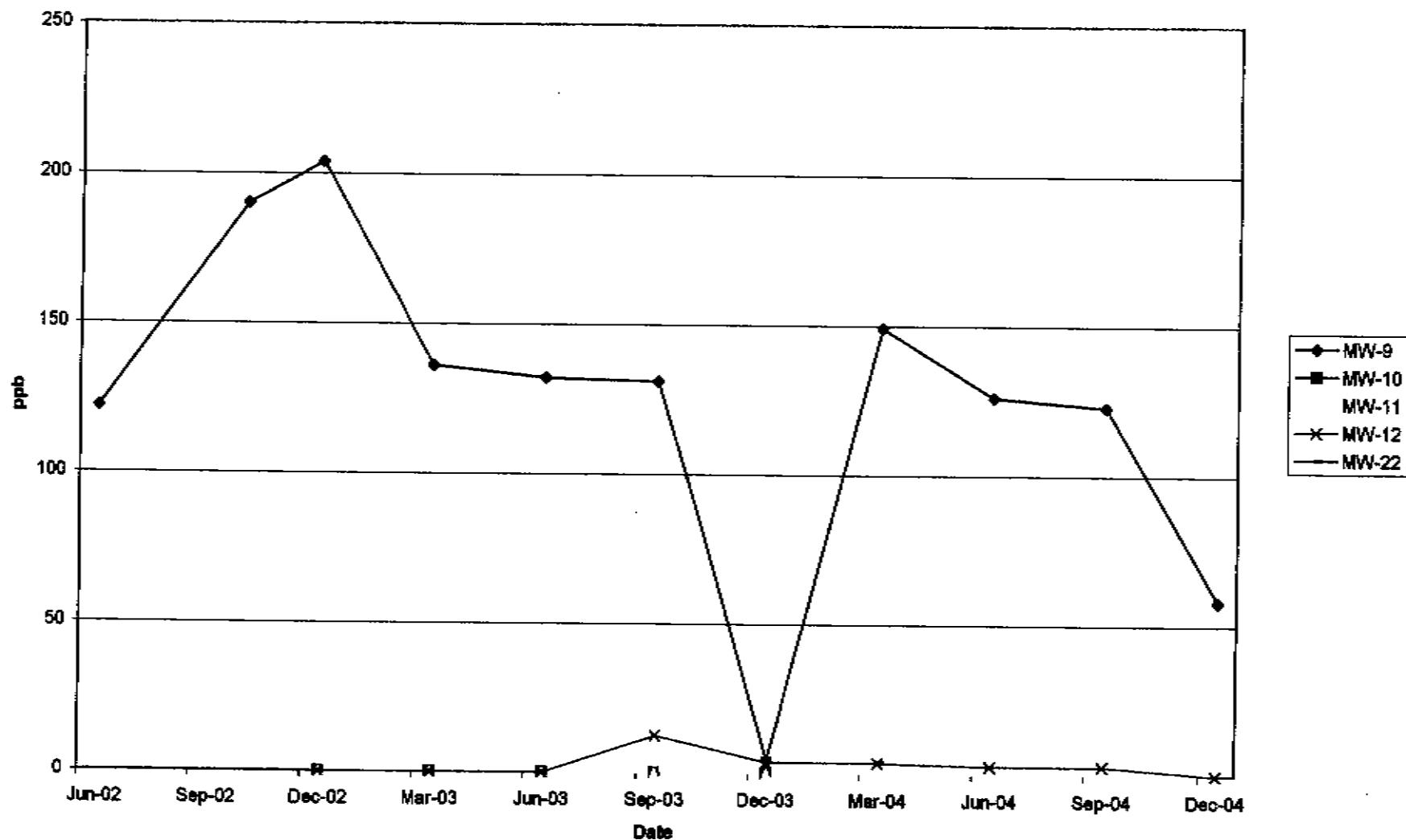
Total Dissolved VOCs in 1st Water Wells  
(excluding MW-10, MW-11, MW-18, MW-19 and MW-26)



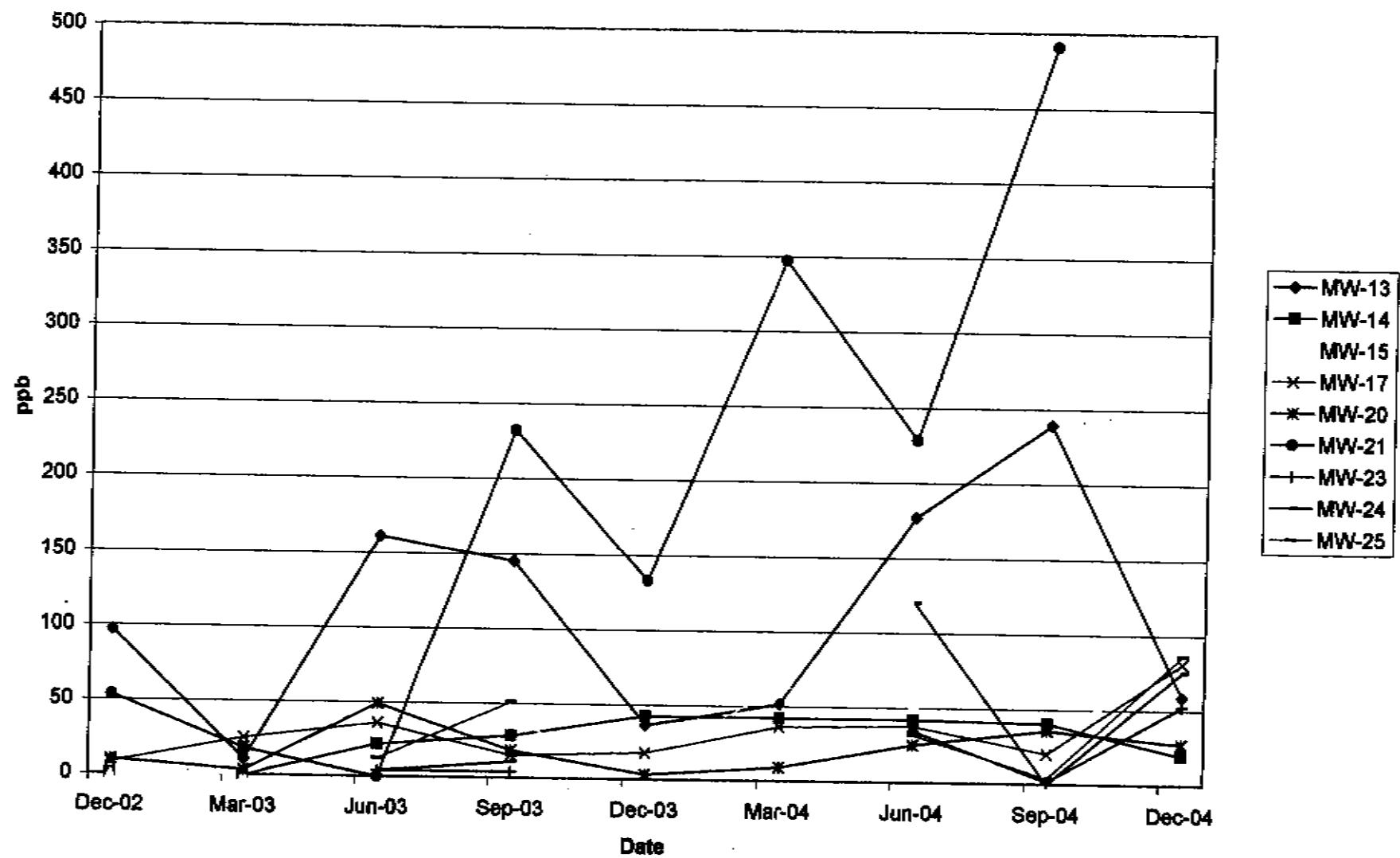
## Dissolved PCE in 1st Water Wells



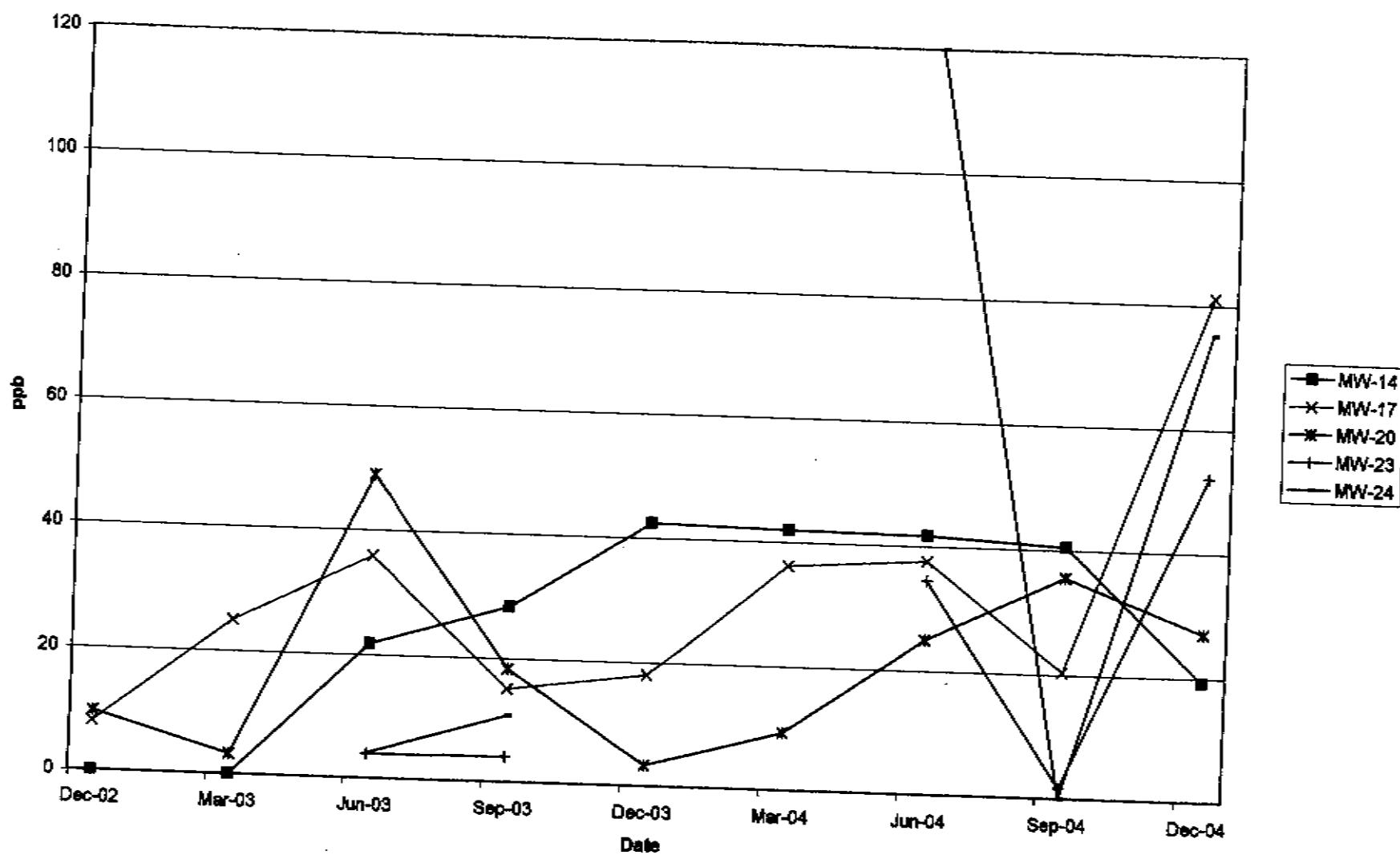
**Dissolved PCE in 1st Water Wells**  
**(excluding MW-16, MW-18, MW-19 and MW-26 for smaller scale)**



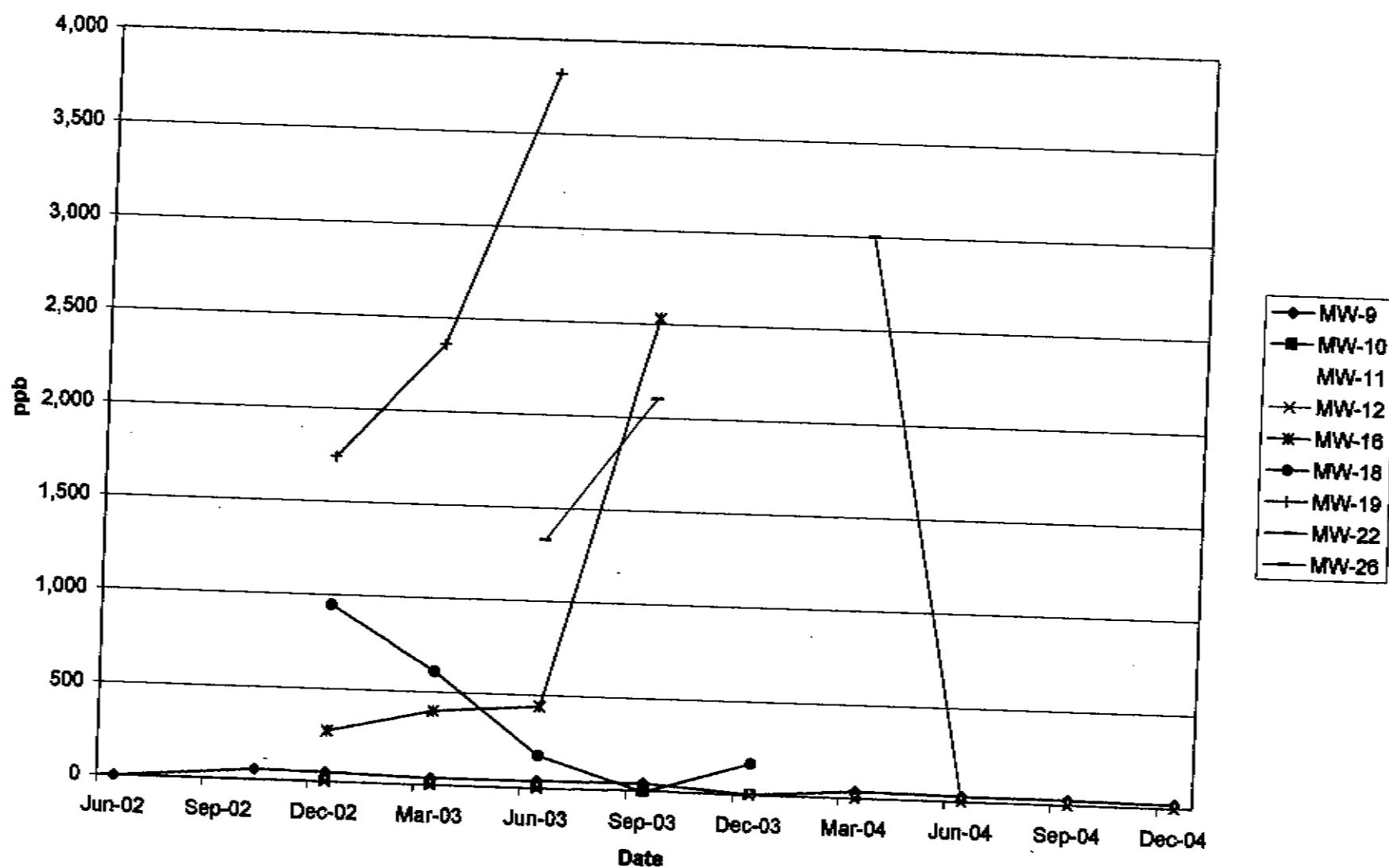
### Dissolved PCE in A1 Wells



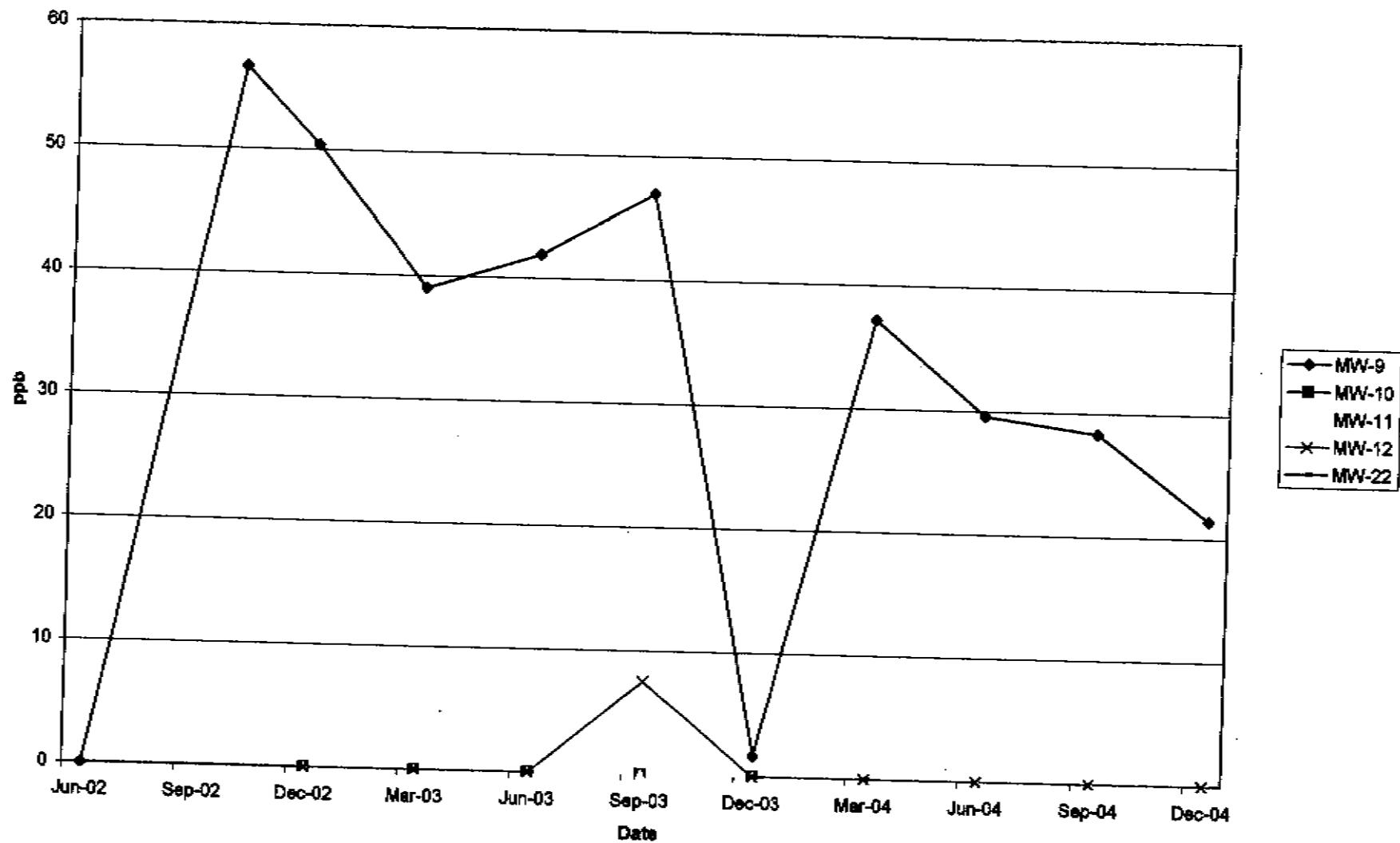
**Dissolved PCE in A1 Wells**  
**(excluding MW-13, MW-15, MW-21 and MW-25 for smaller scale)**

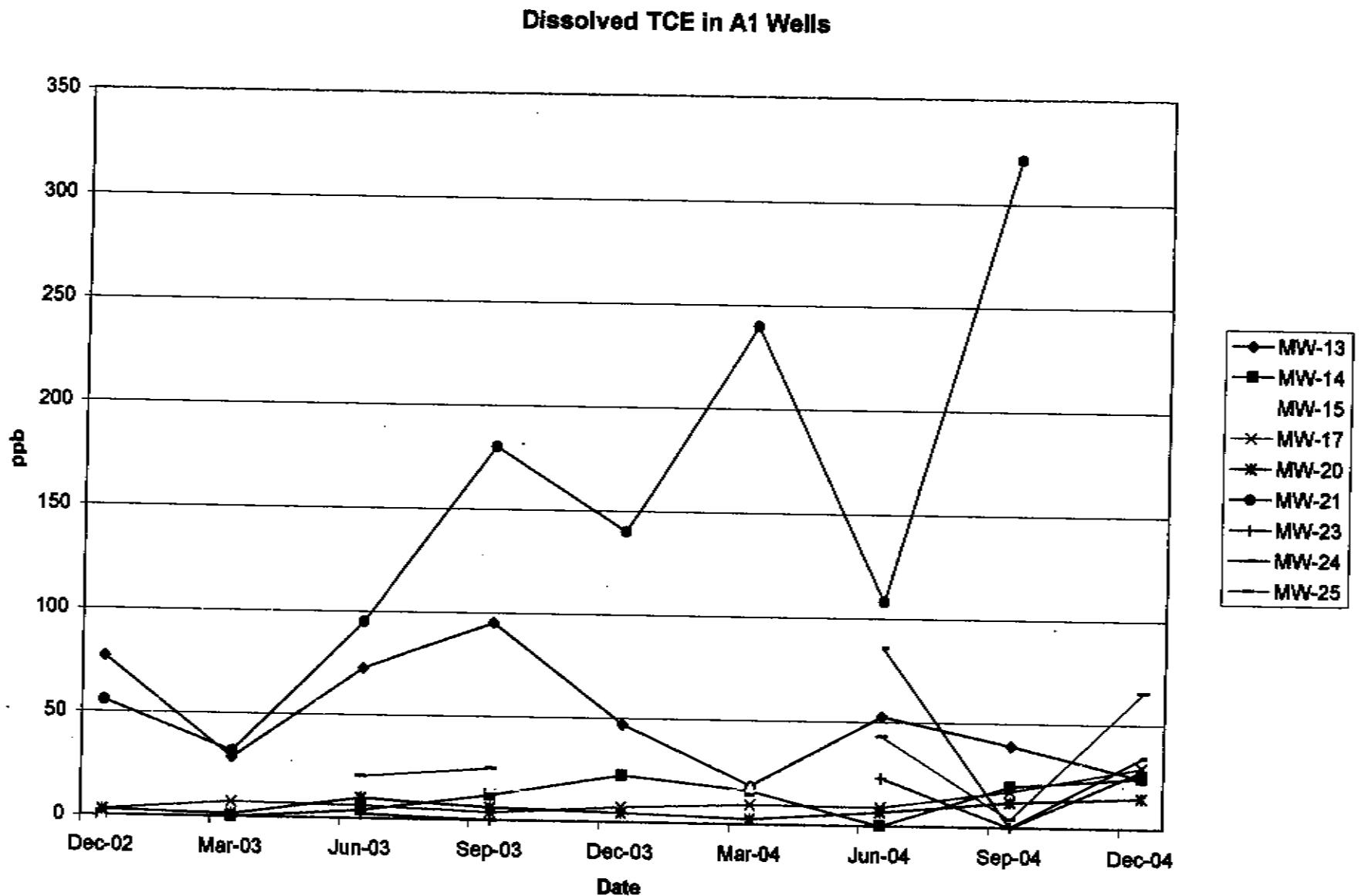


### Dissolved TCE in 1st Water Wells

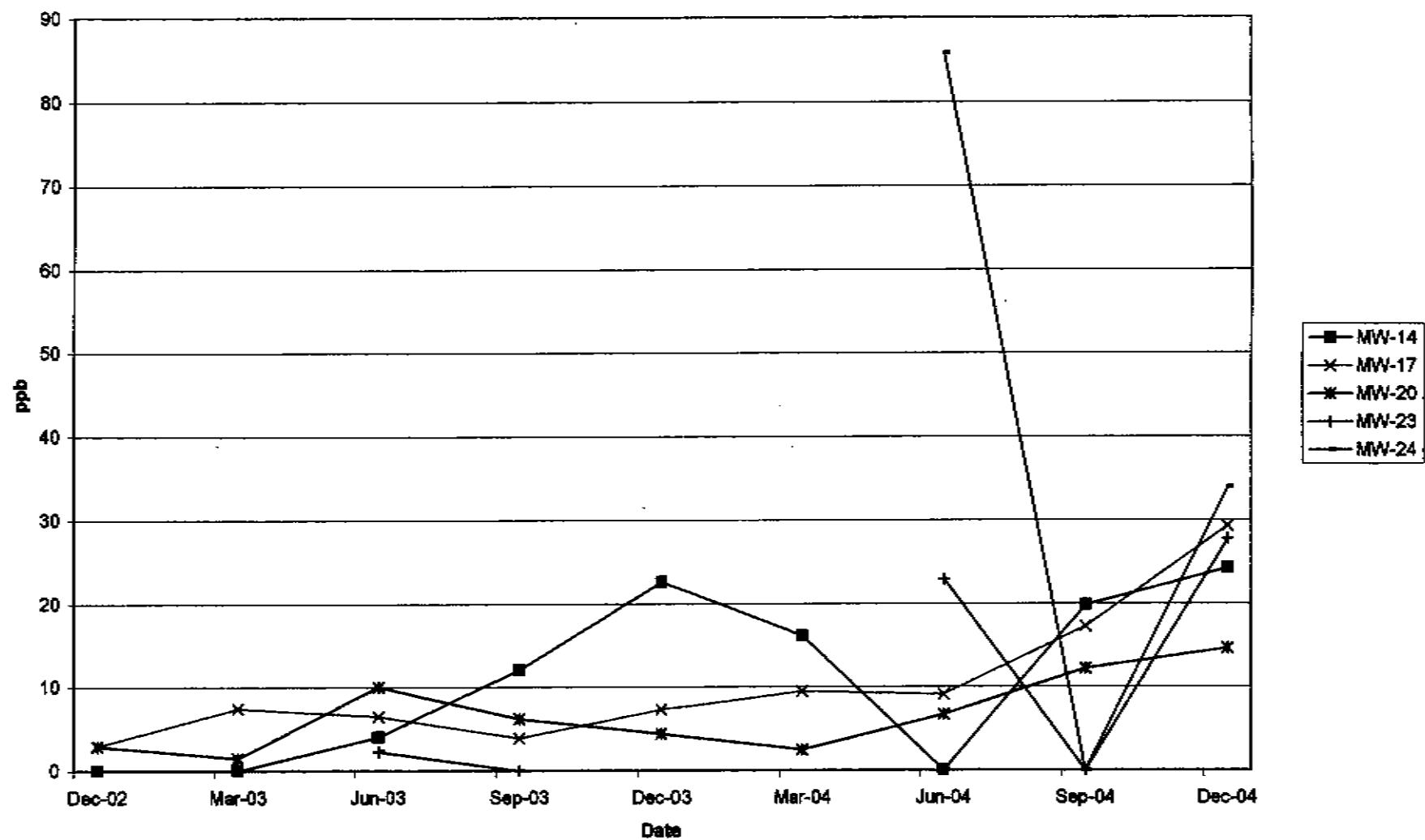


**Dissolved TCE in 1st Water Wells**  
(excluding MW-16, MW-18, MW-19 and MW-26 for smaller scale)

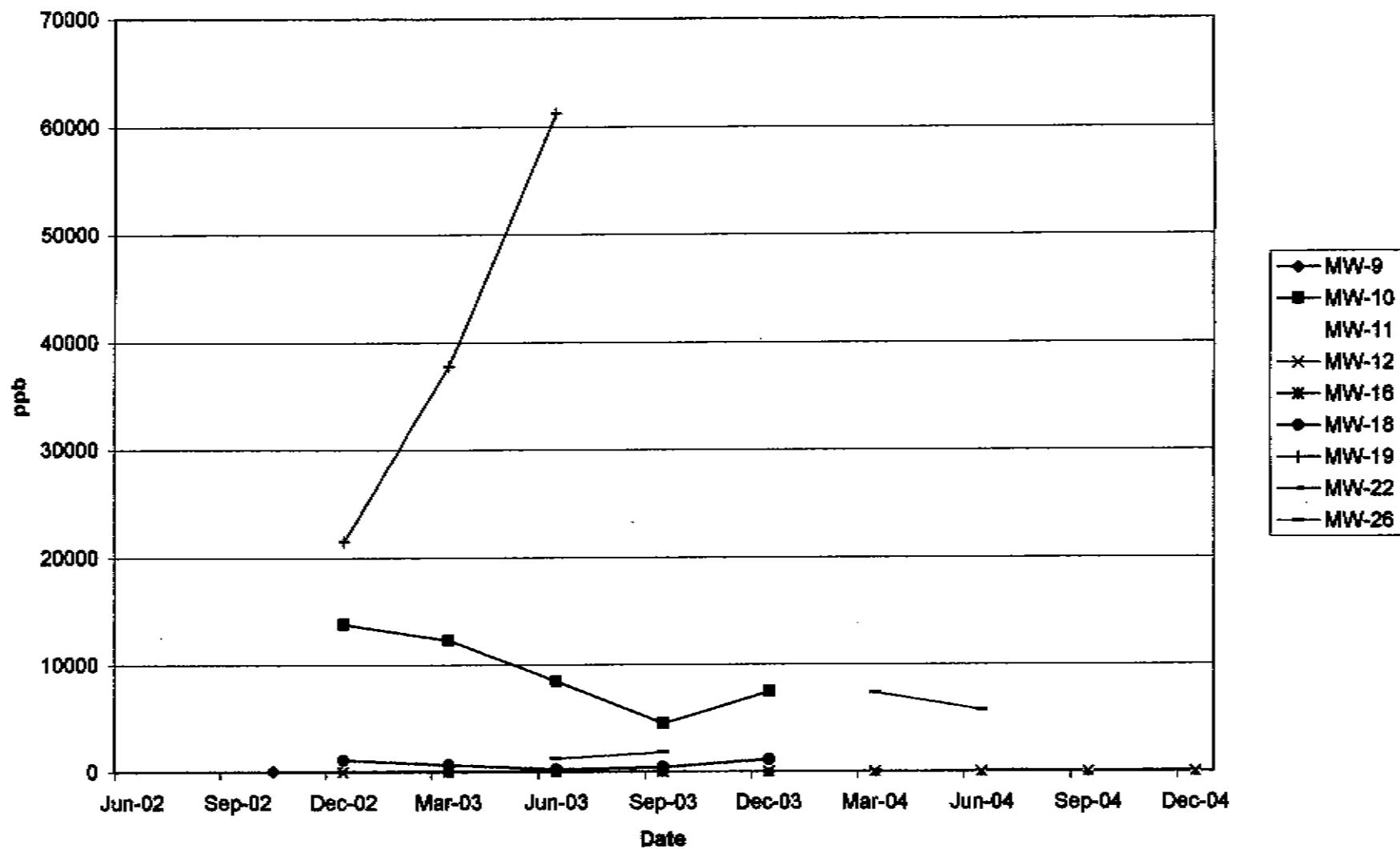




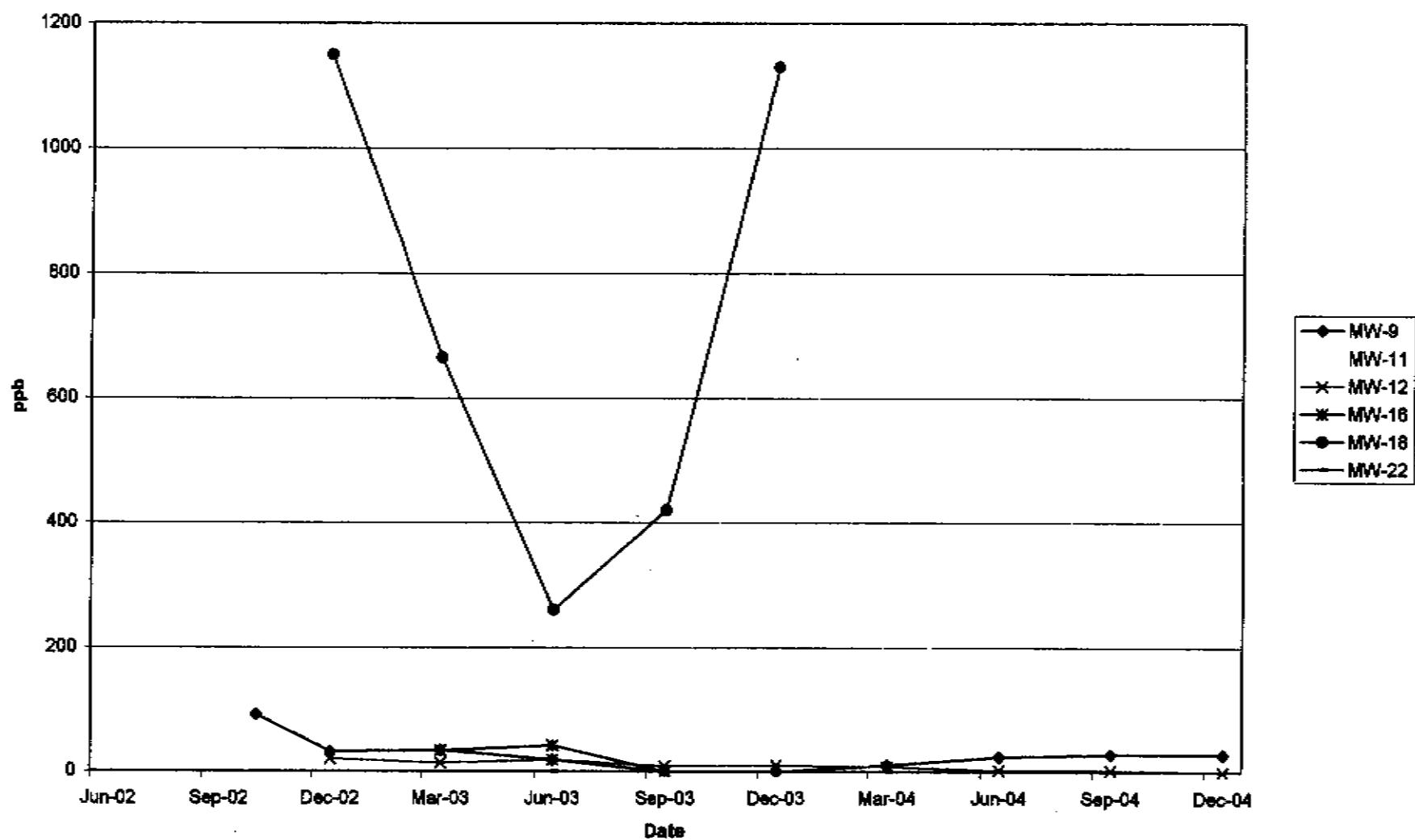
**Dissolved TCE in A1 Wells**  
**(excluding MW-13, MW-15, MW-21 and MW-25 for smaller scale)**



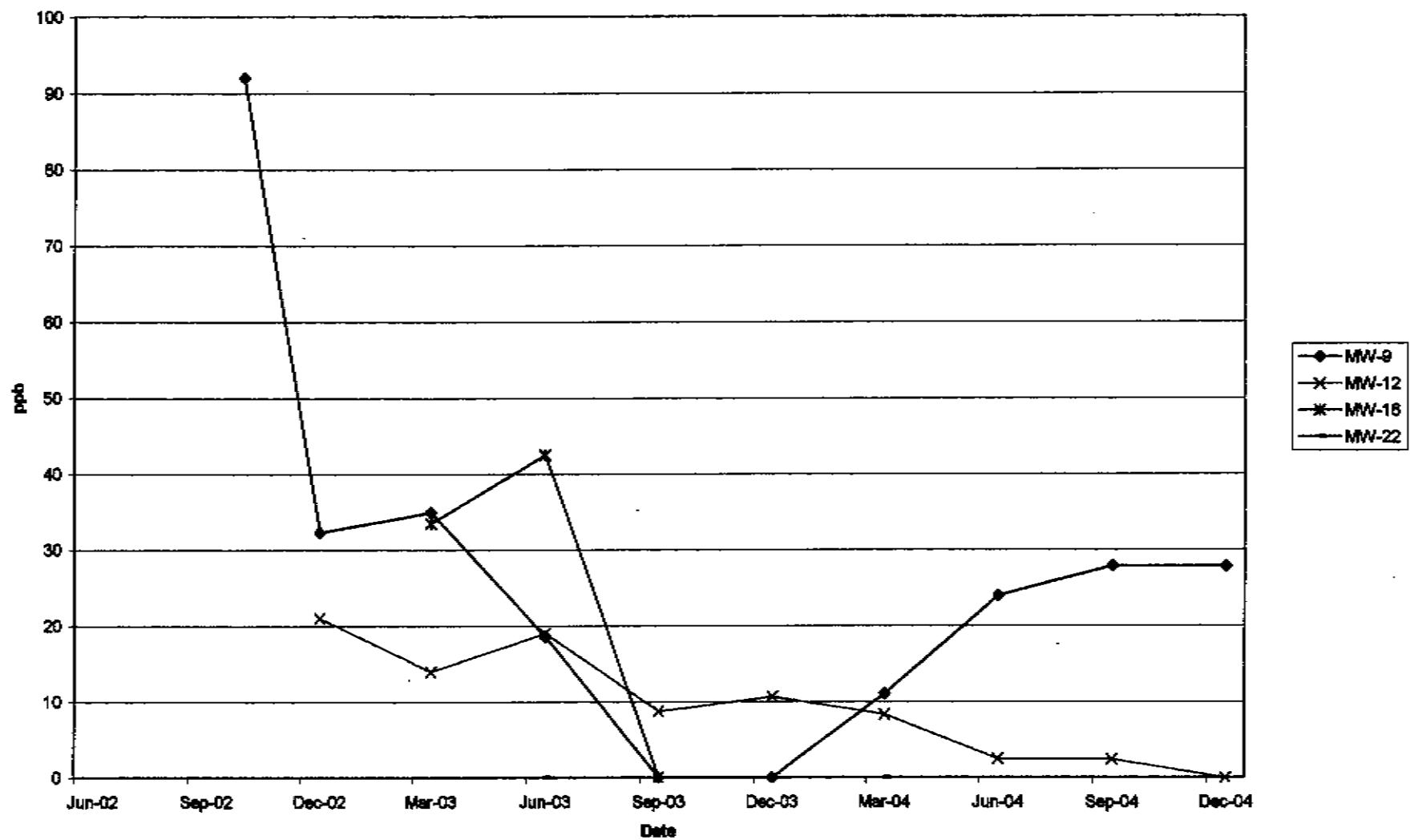
## Dissolved 1,1,1-TCA in 1st Water Wells



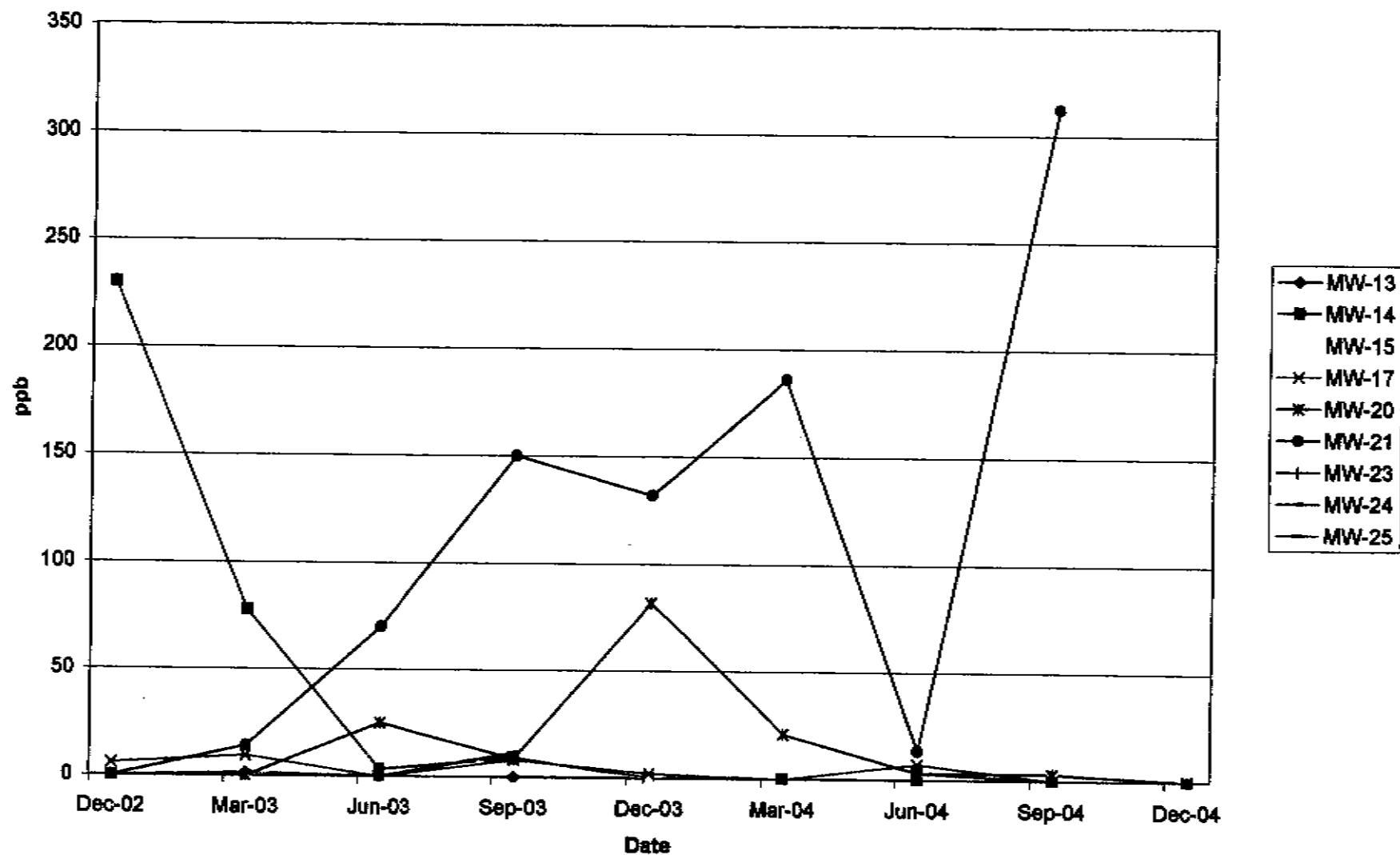
**Dissolved 1,1,1-TCA in 1st Water Wells**  
(excluding MW-10, MW-19 and MW-26 for smaller scale)



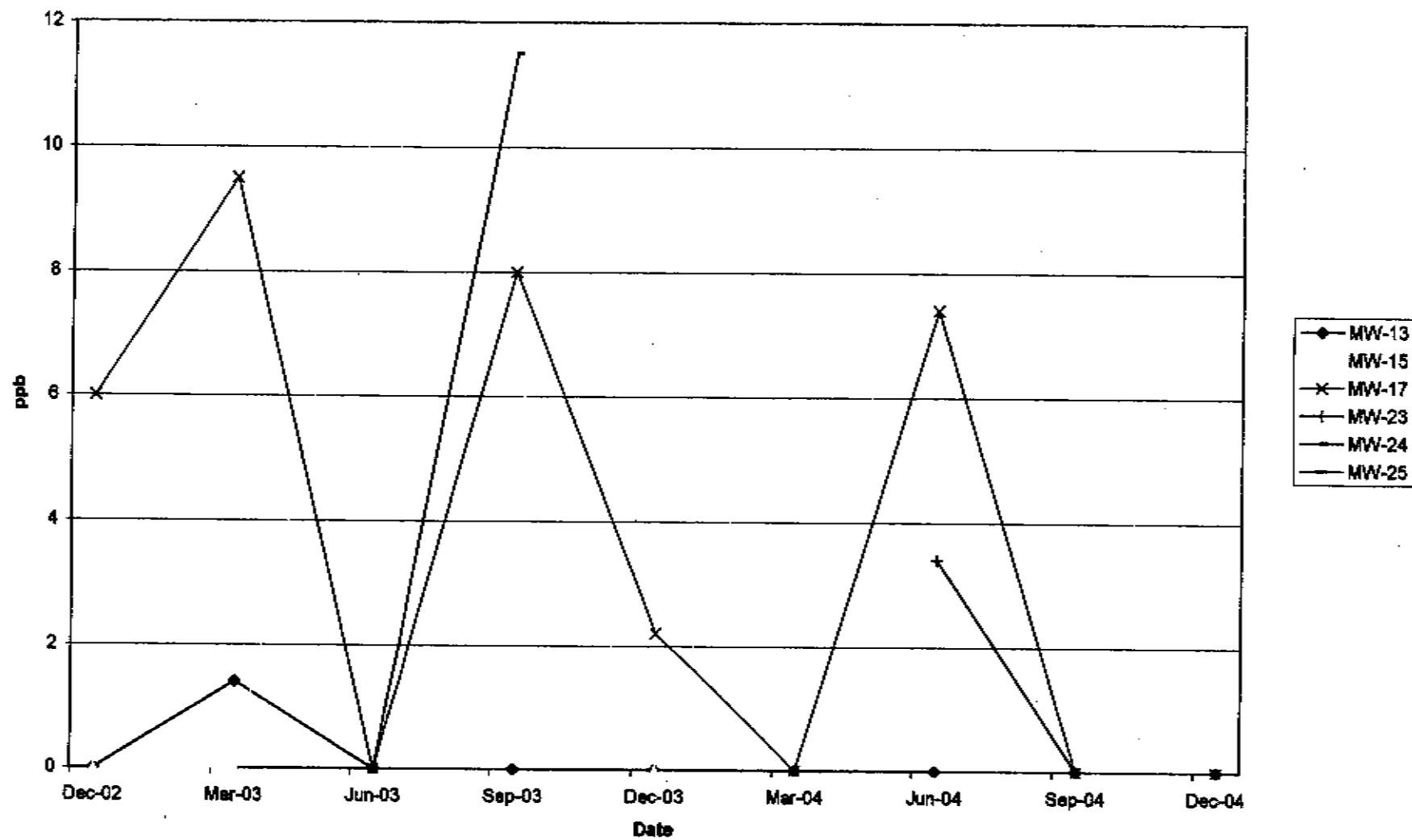
**Dissolved 1,1,1-TCA In 1st Water Wells**  
**(excluding MW-10, MW-11, MW-18, MW-19 and MW-26 for smaller scale)**



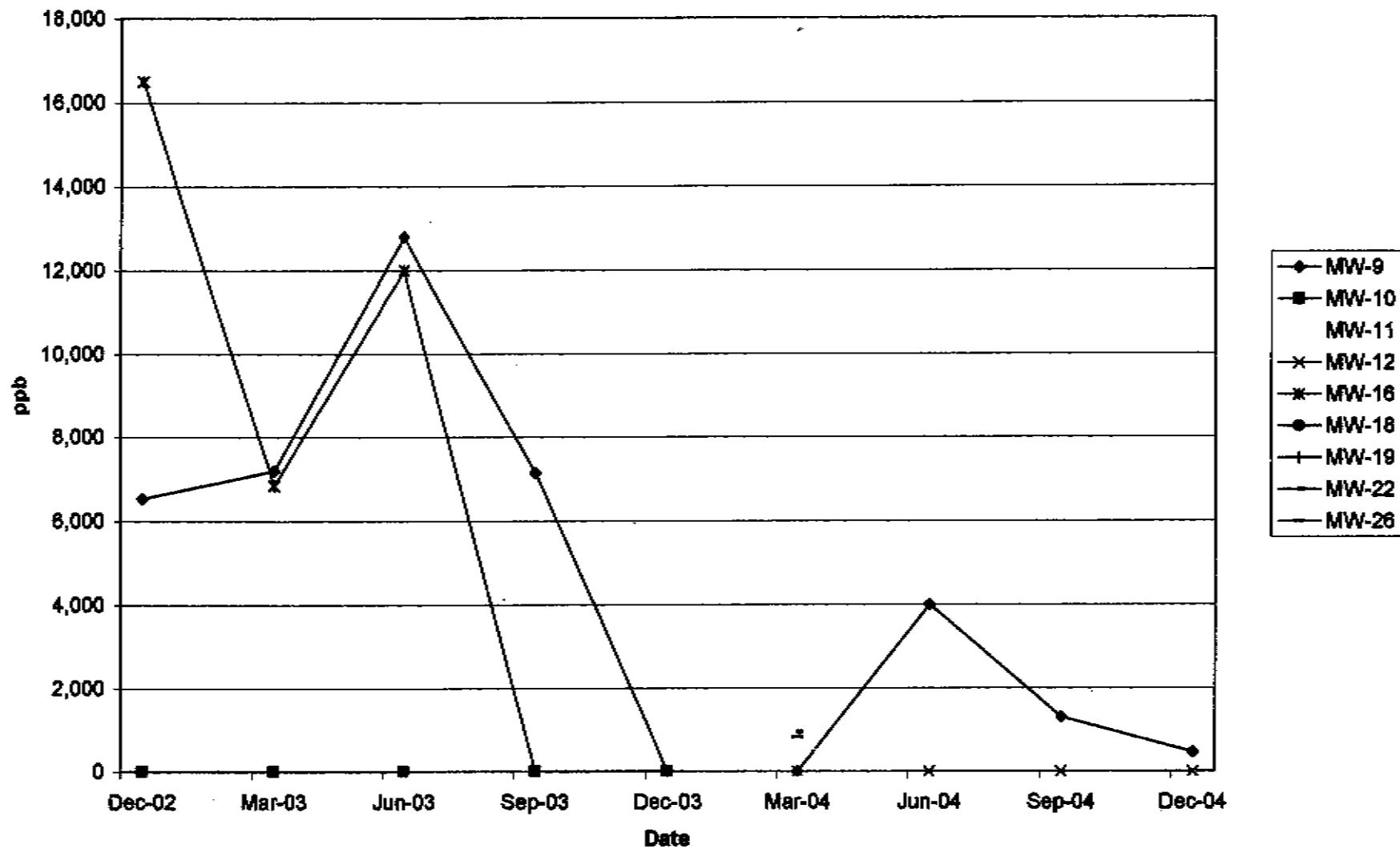
### Dissolved 1,1,1-TCA in A1 Wells



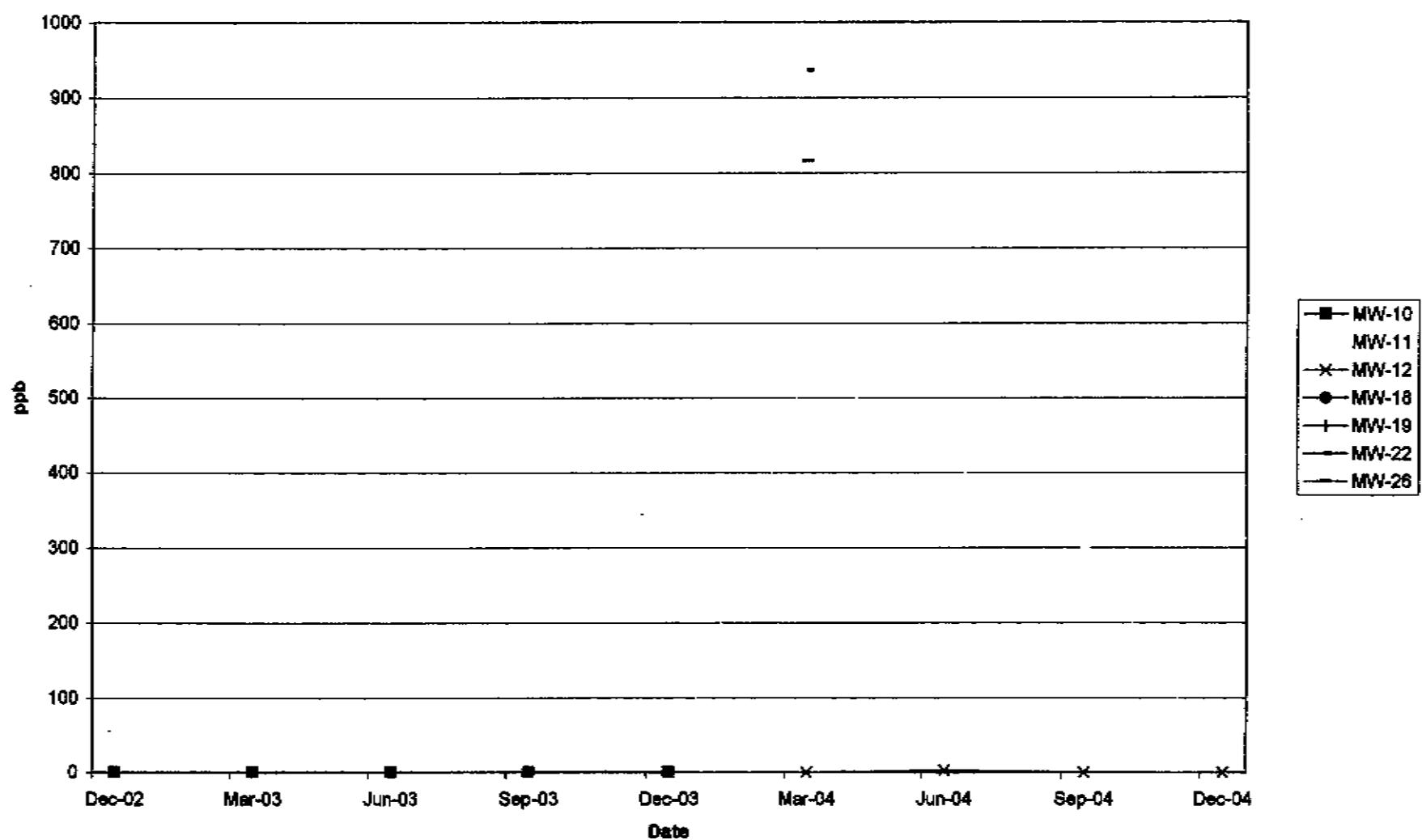
**Dissolved 1,1,1-TCA in A1 Wells**  
**(excluding MW-14, MW-20 and MW-21 for smaller scale)**



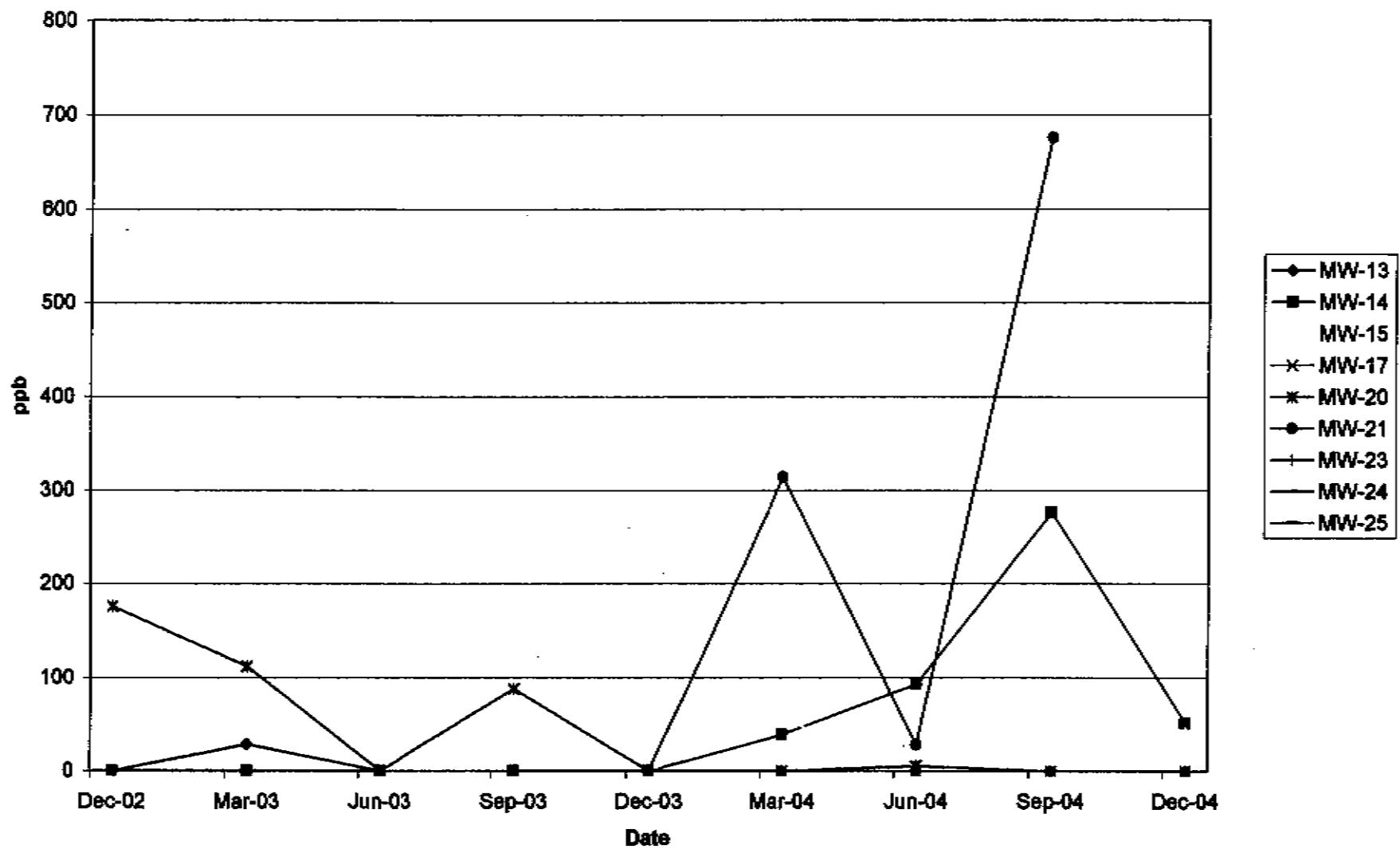
## Dissolved 1,4-Dioxane in 1st Water Wells



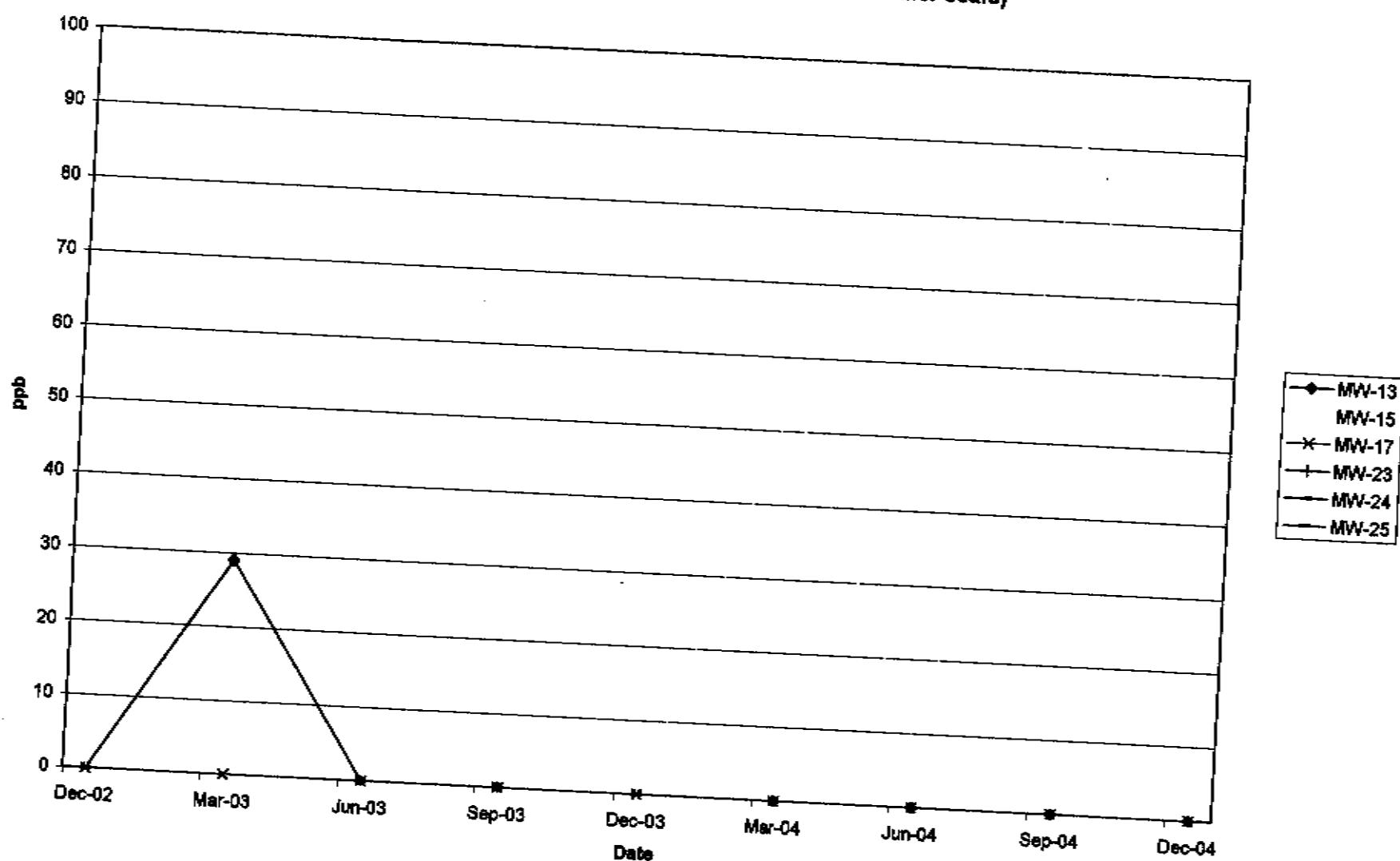
**Dissolved 1,4-Dioxane in 1st Water Wells  
(excluding MW-9 and MW-16 for smaller scale)**



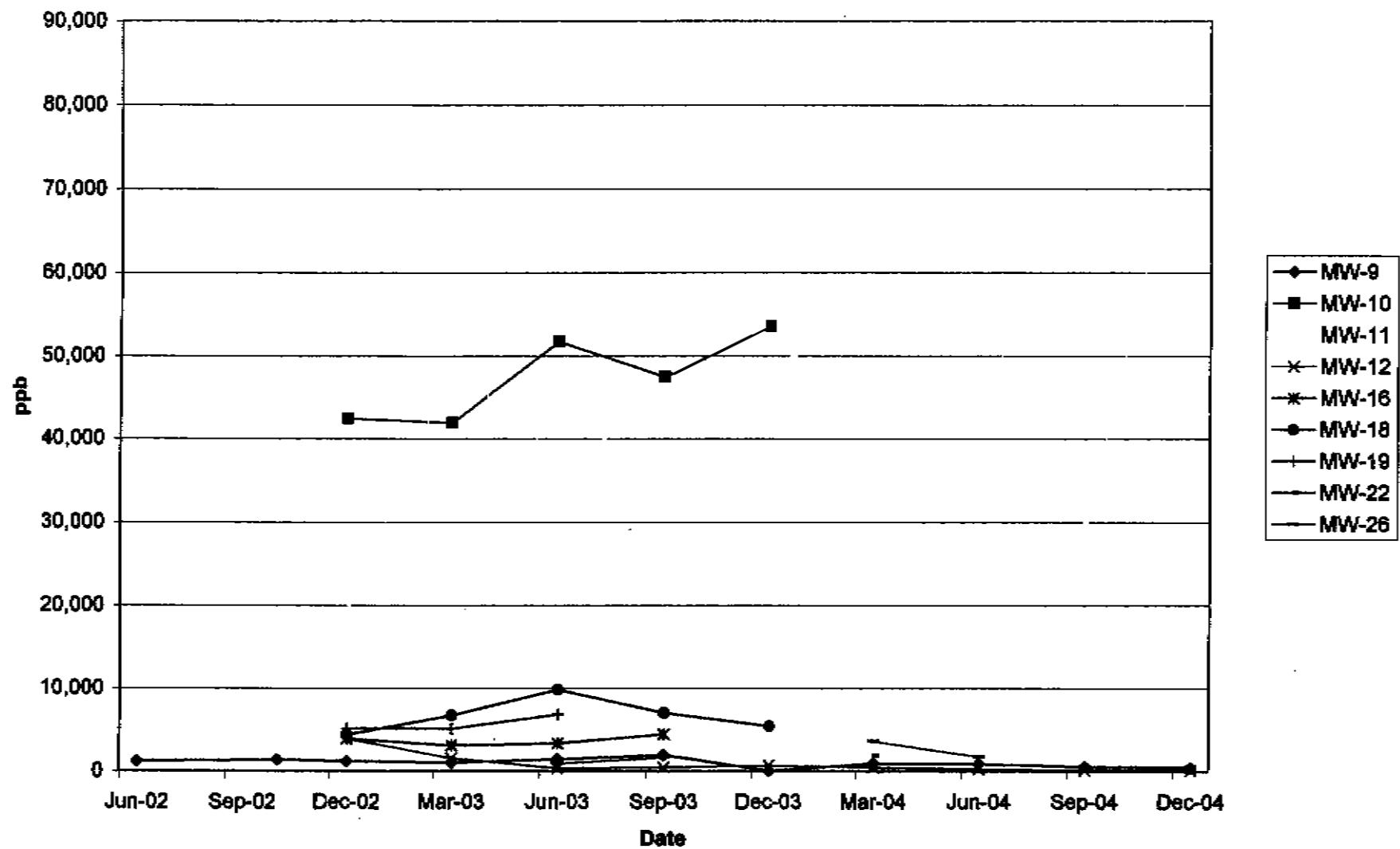
### Dissolved 1,4-Dioxane in A1 Wells



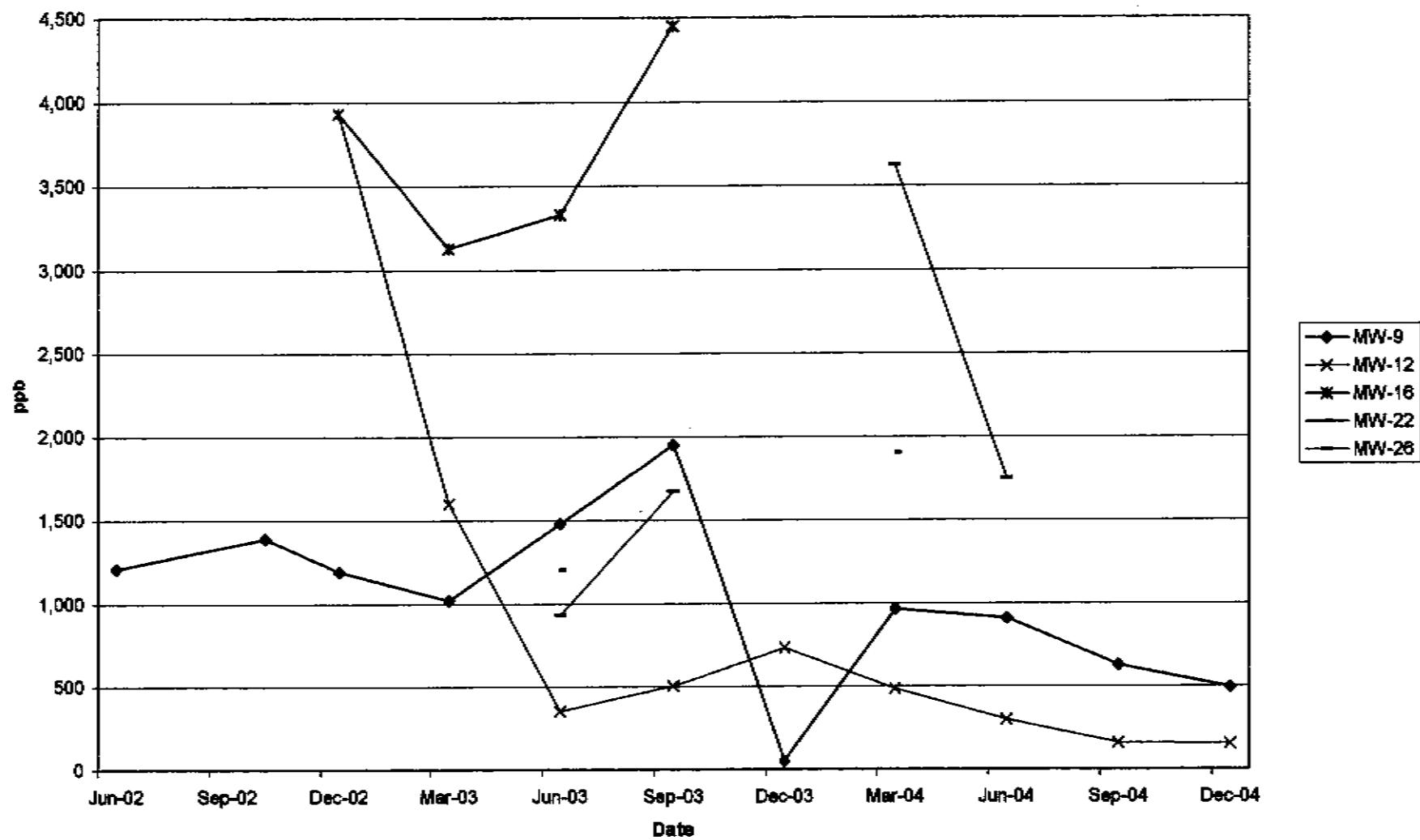
Dissolved 1,4-Dioxane in A1 Wells  
(excluding MW-14, MW-20 and MW-21 for smaller scale)



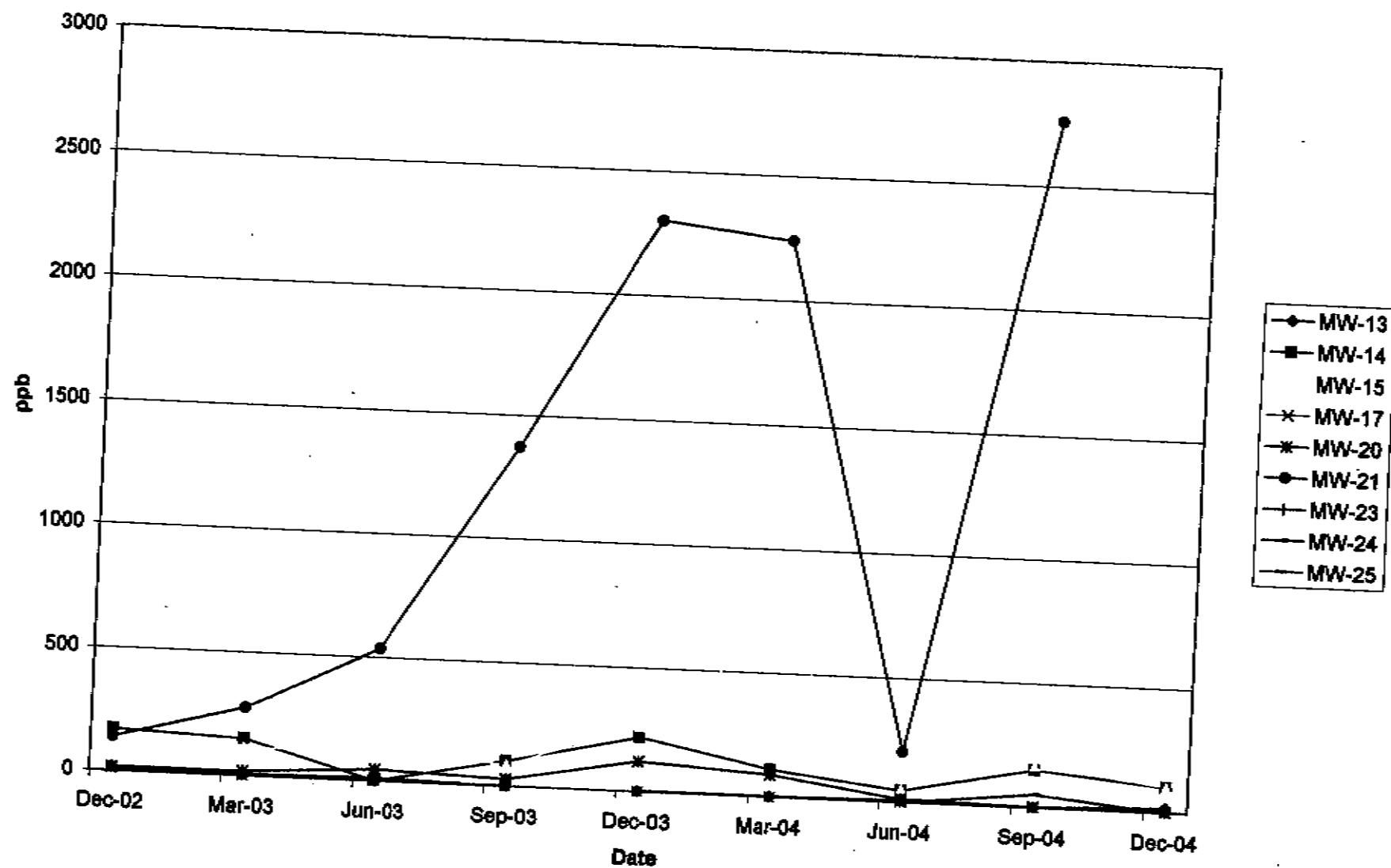
### Dissolved 1,1-DCA in 1st Water Wells



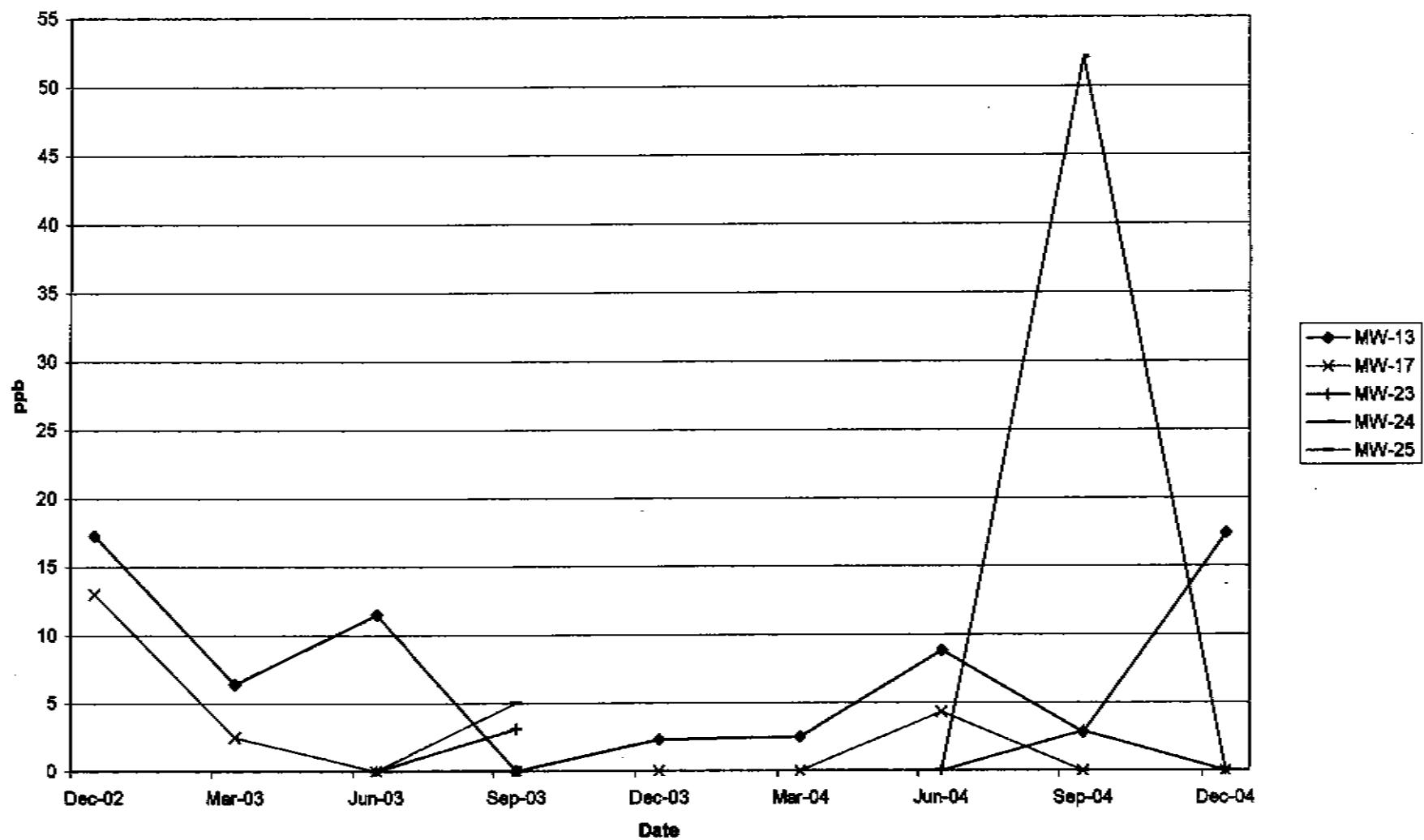
**Dissolved 1,1-DCA in 1st Water Wells**  
**(excluding MW-10, MW-11, MW-18 and MW-19 for smaller scale)**



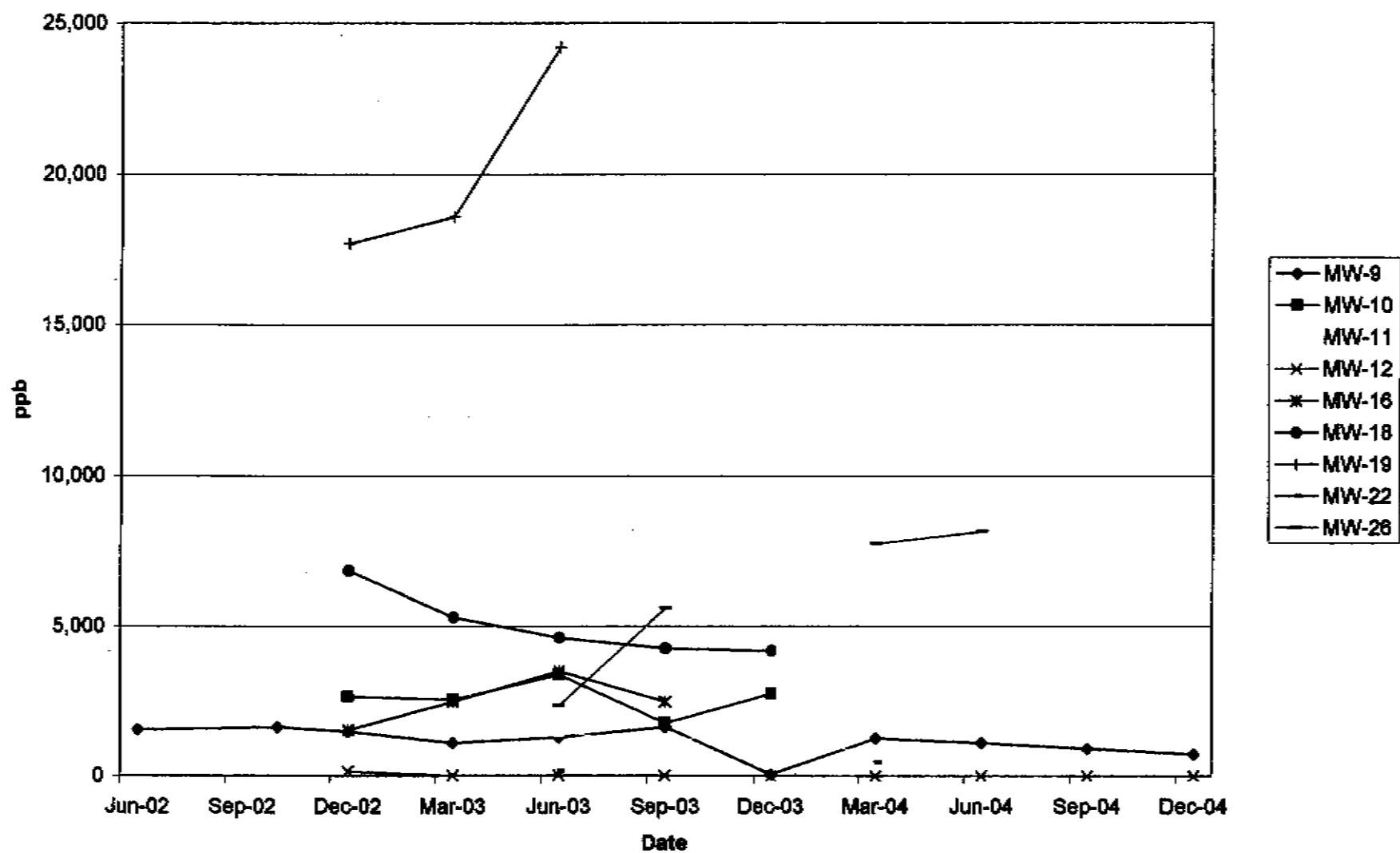
### Dissolved 1,1-DCA in A1 Wells



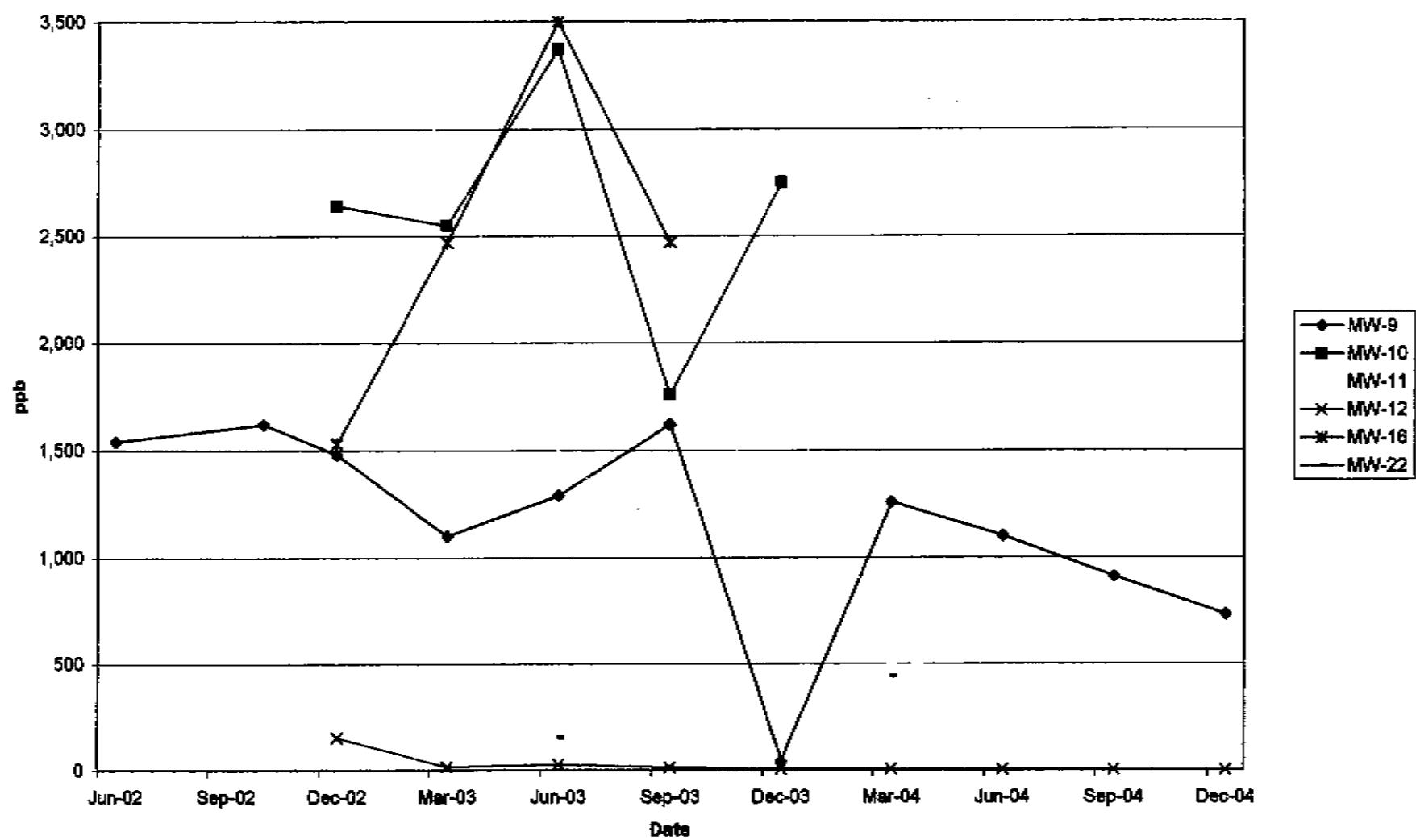
**Dissolved 1,1-DCA in A1 Wells**  
**(excluding MW-14, MW-15, MW-20 and MW-21 for smaller scale)**



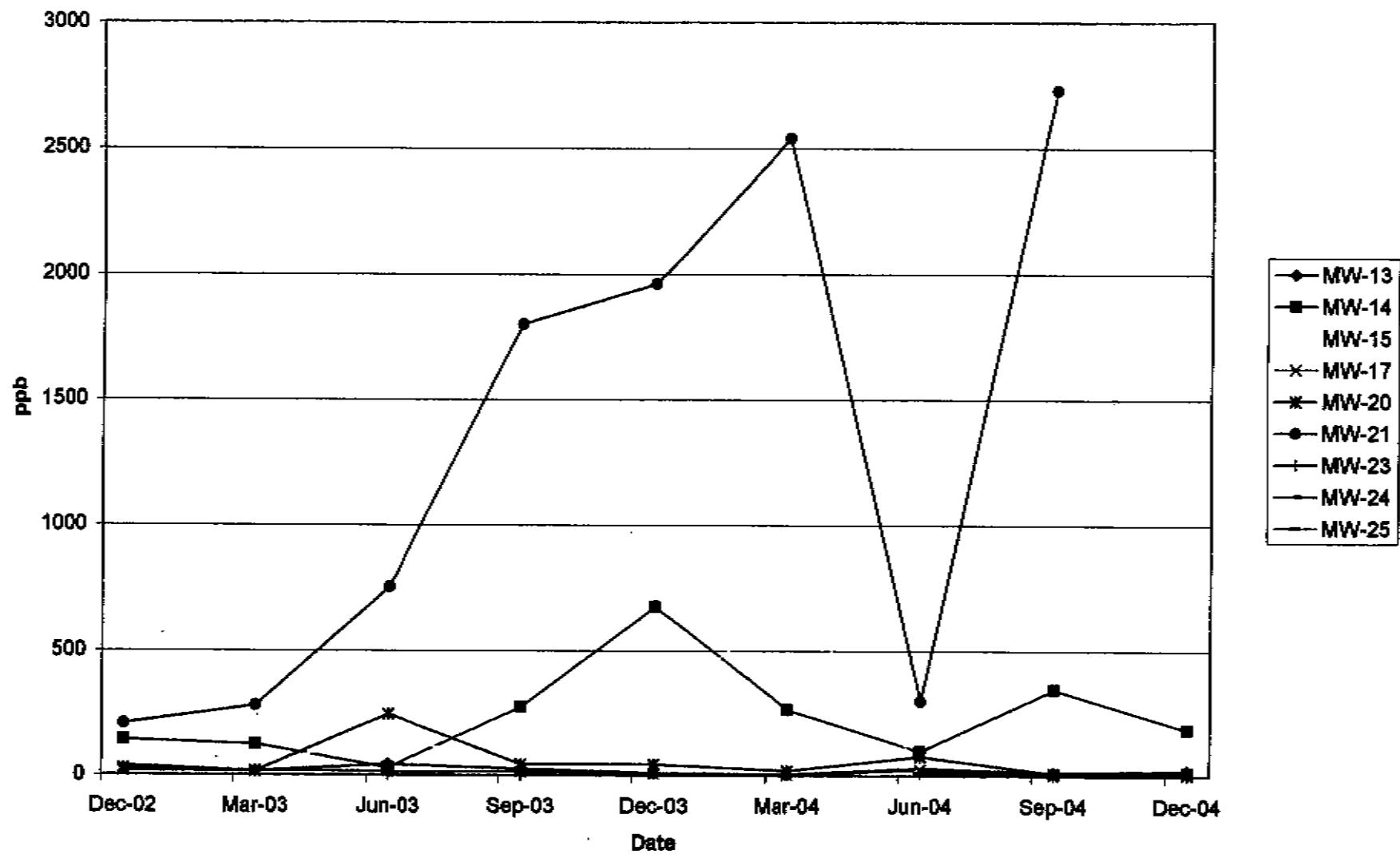
## Dissolved 1,1-DCE in 1st Water Wells



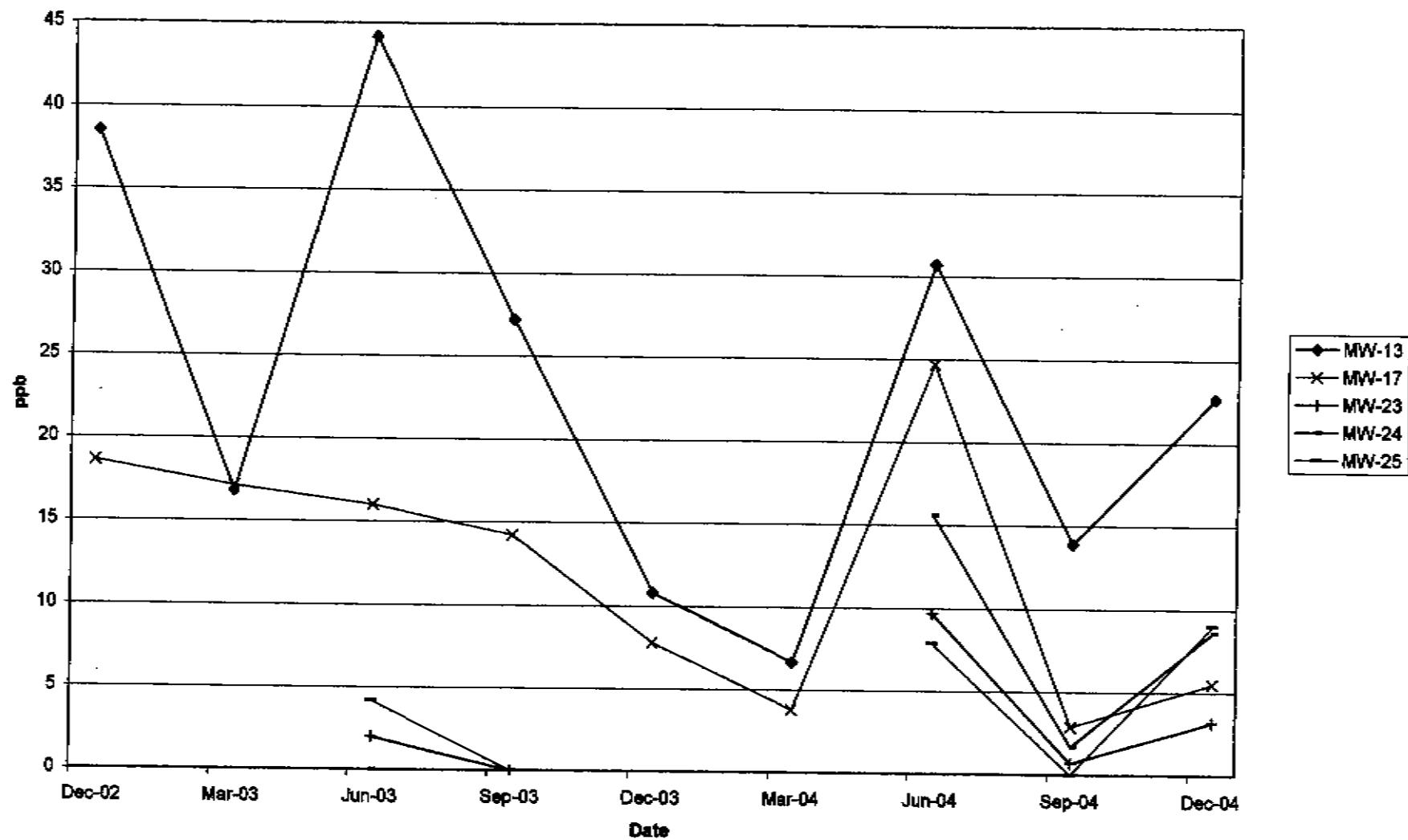
**Dissolved 1,1-DCE in 1st Water Wells**  
**(excluding MW-18, MW-19 and MW-26 for smaller scale)**



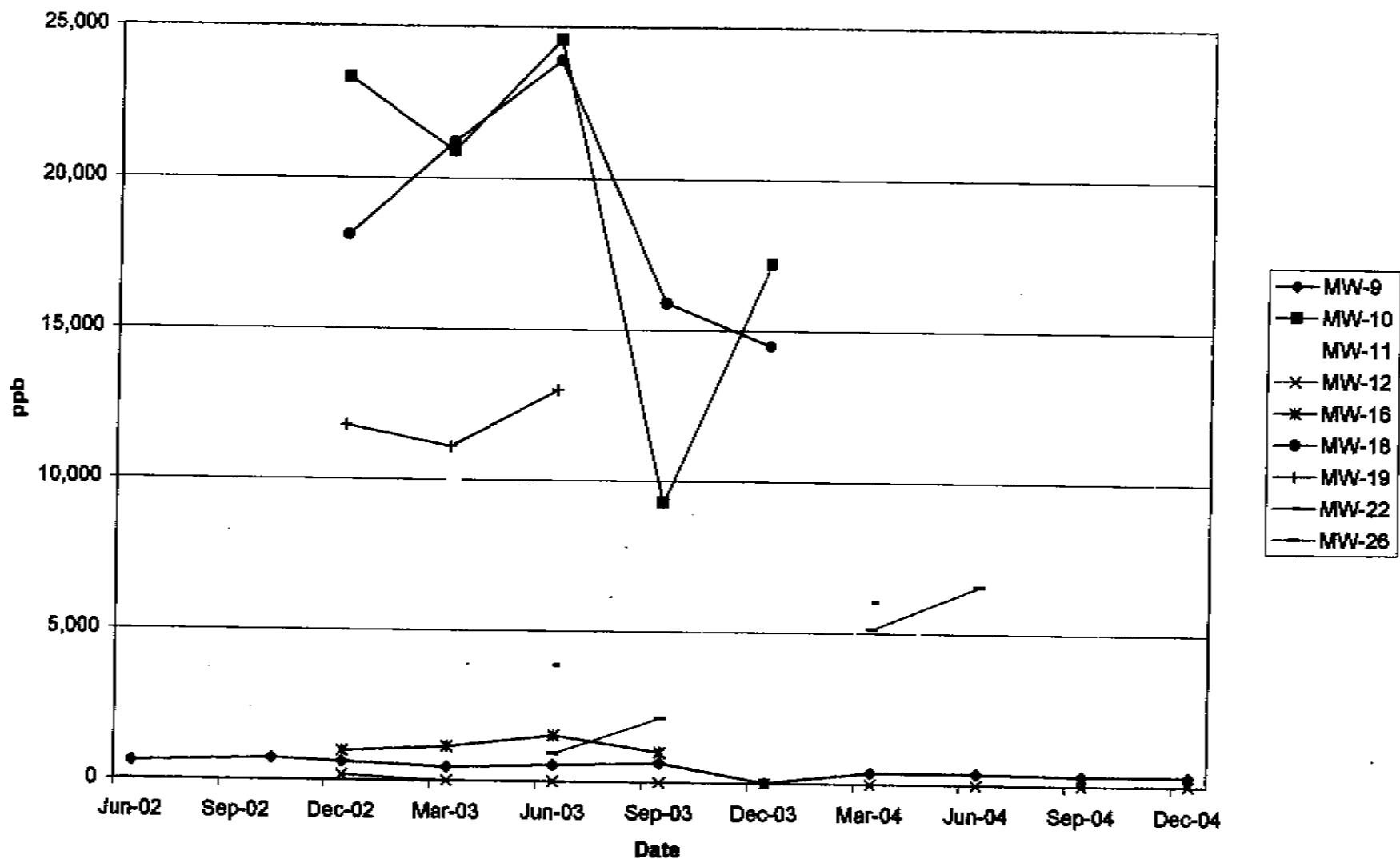
### Dissolved 1,1-DCE in A1 Wells



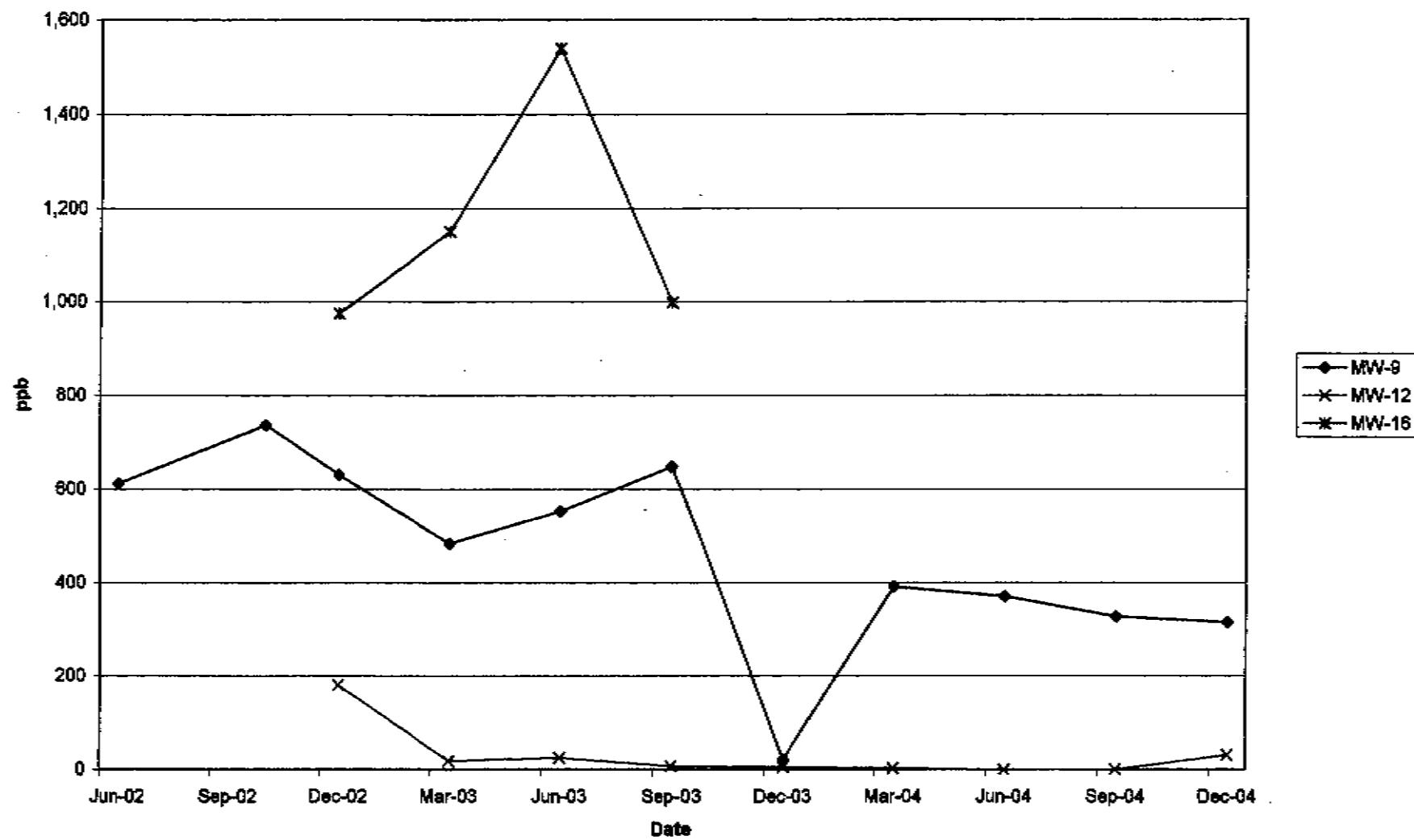
**Dissolved 1,1-DCE in A1 Wells**  
**(excluding MW-14, MW-15, MW-20 and MW-21 for smaller scale)**



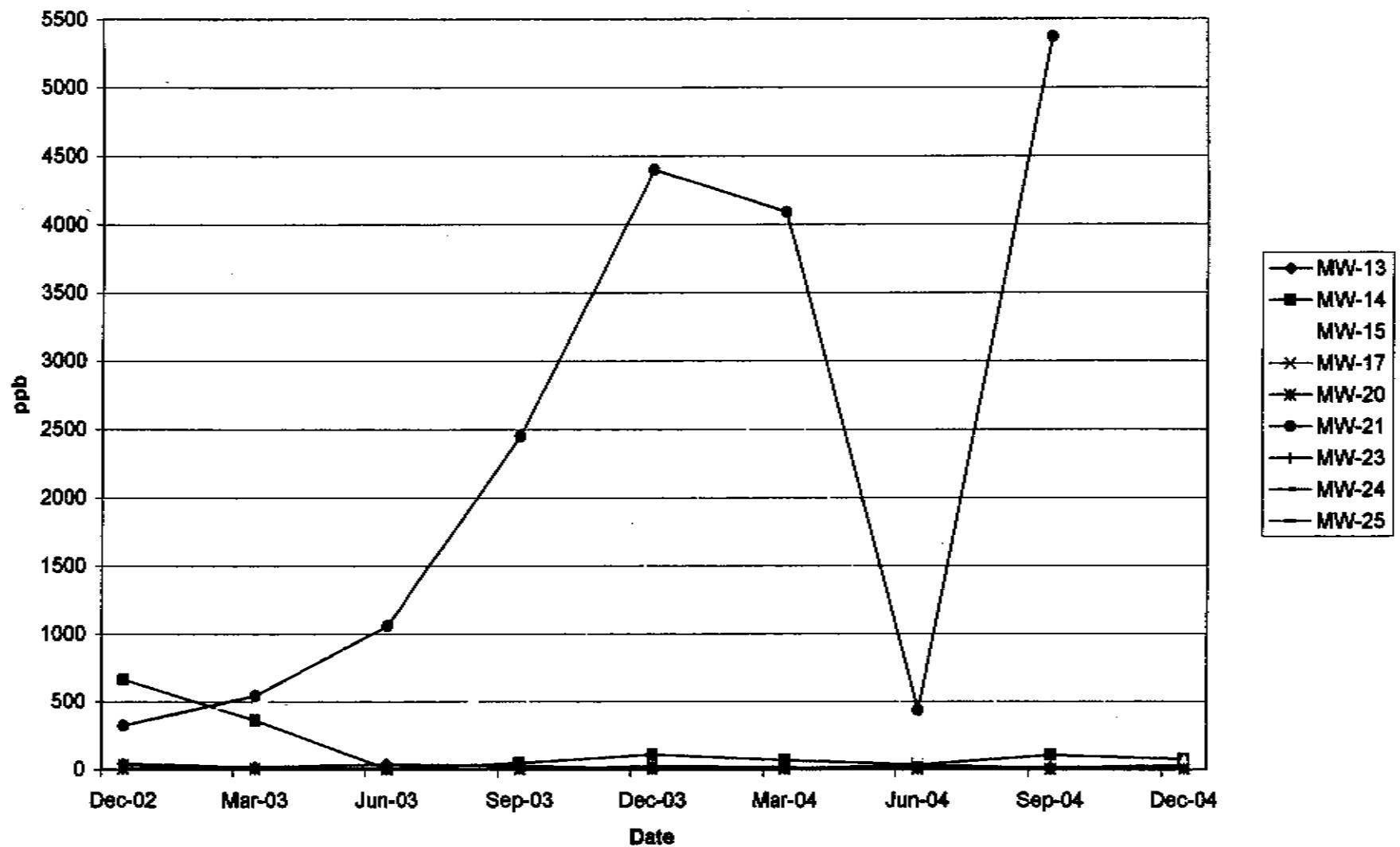
## Dissolved Cis-1,2-DCE in 1st Water Wells



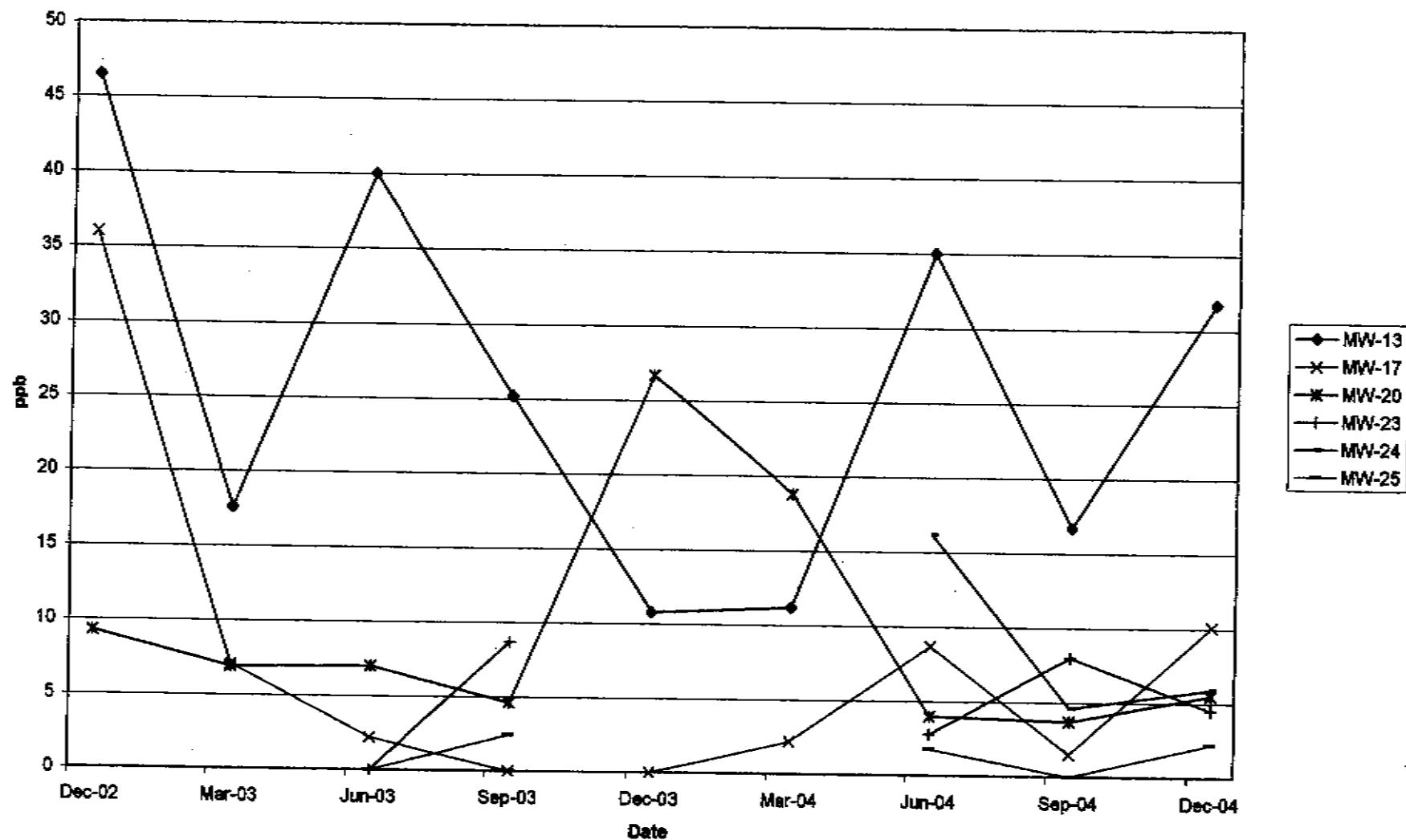
**Dissolved Cis-1,2-DCE in 1st Water Wells**  
(excluding MW-10, MW-11, MW-18, MW-19, MW-22 and MW-26 for smaller scale)



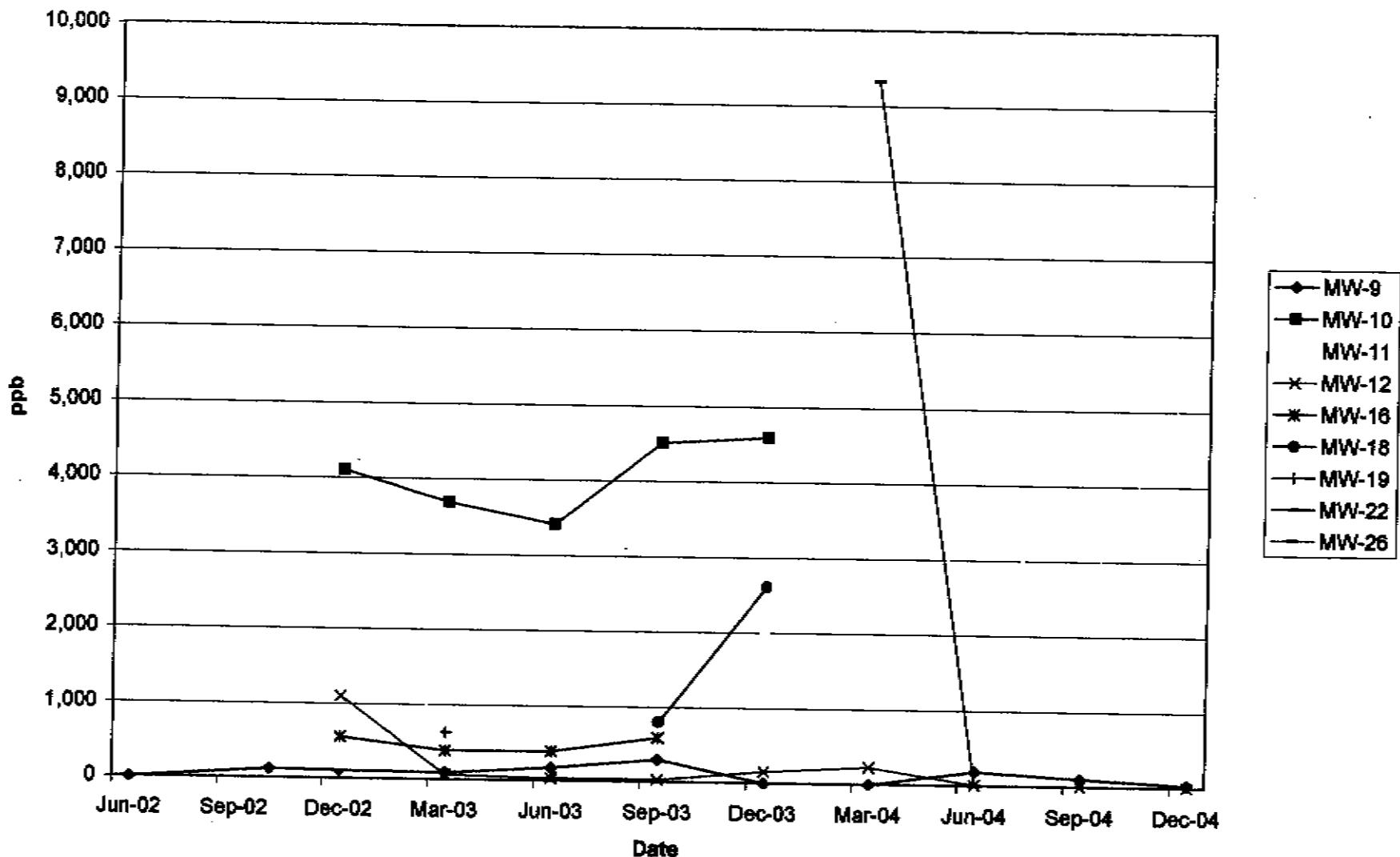
## Dissolved Cis-1,2-DCE in A1 Wells



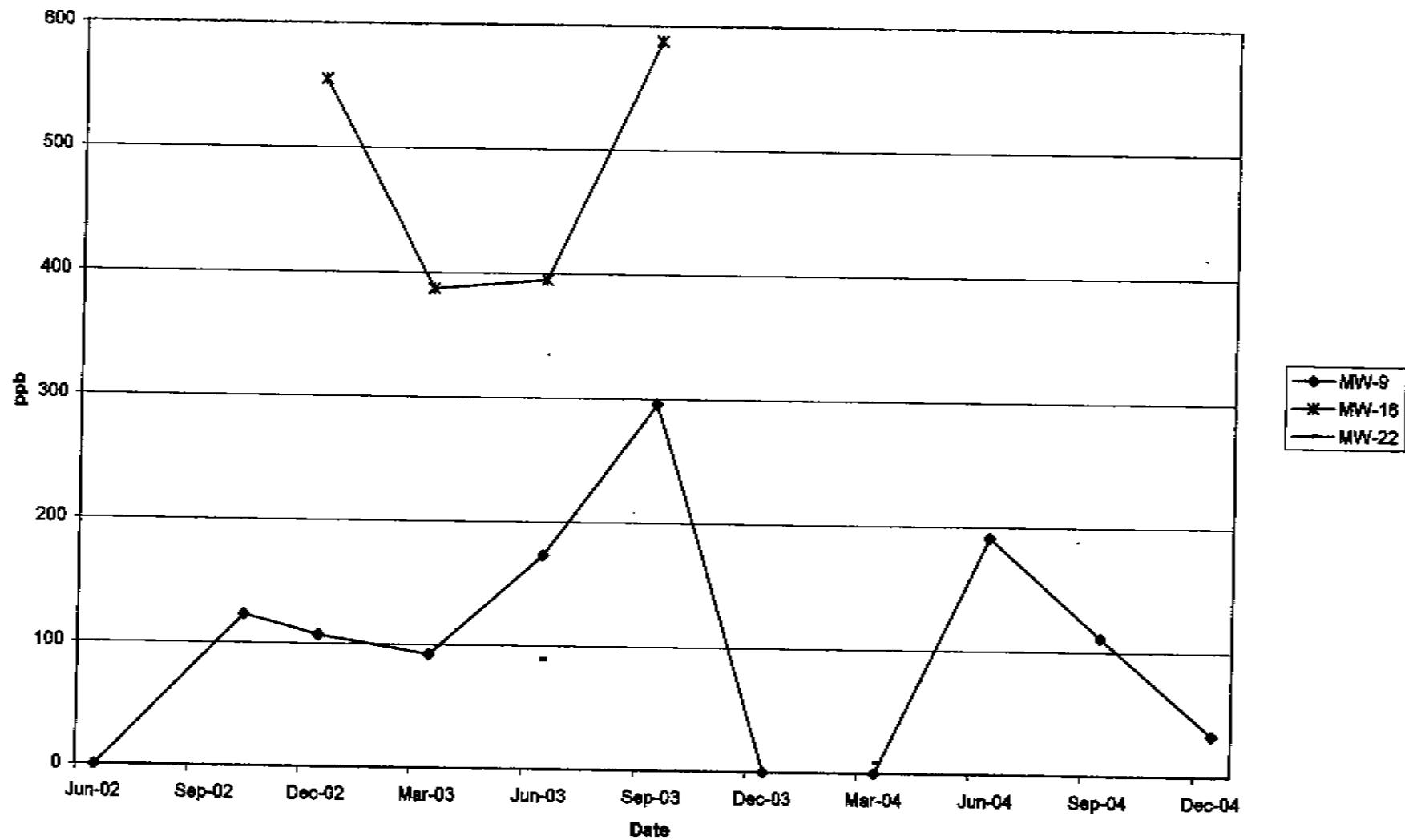
**Dissolved Cis-1,2-DCE in A1 Wells**  
**(excluding MW-14, MW-15 and MW-21 for smaller scale)**



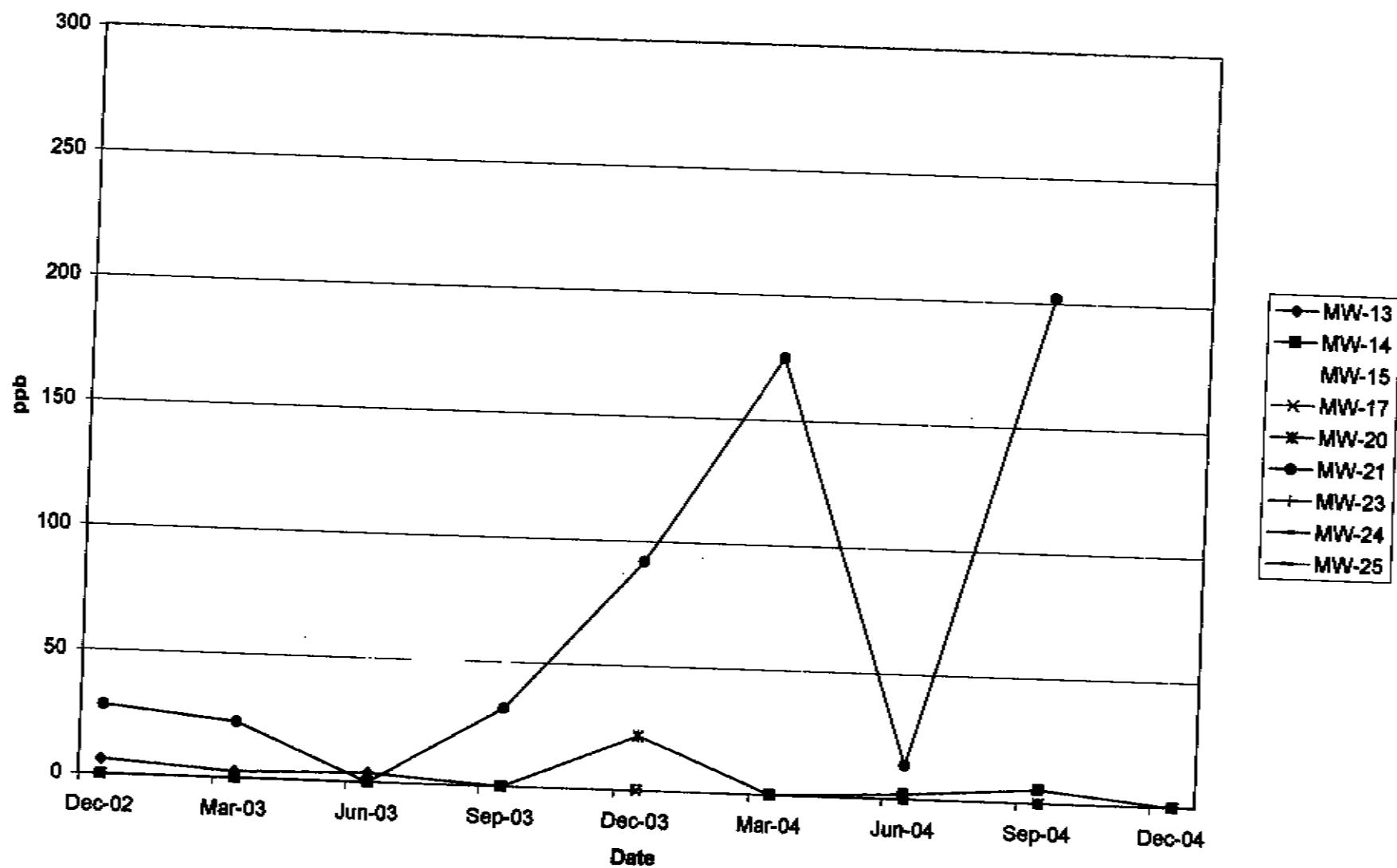
## Dissolved Vinyl Chloride in 1st Water



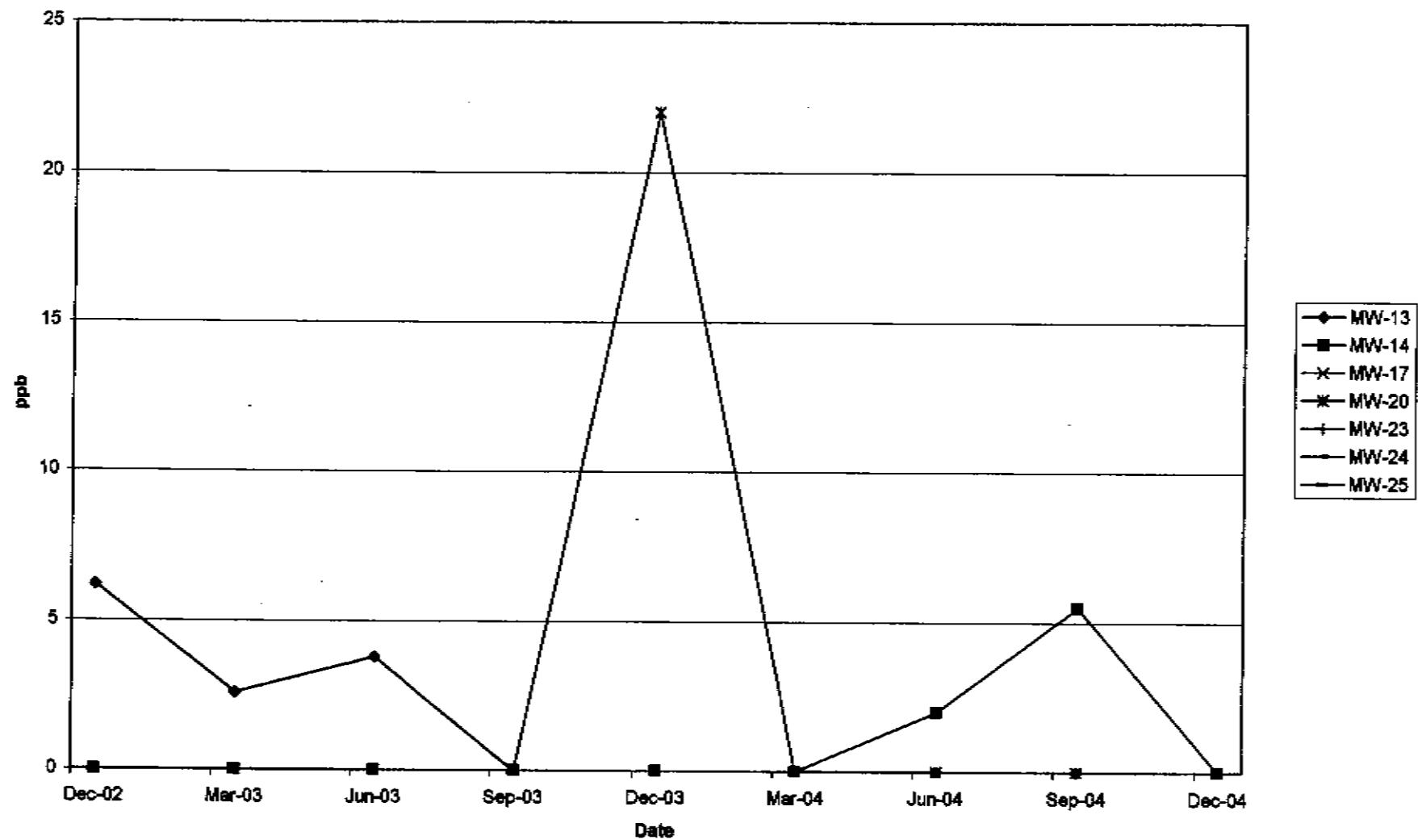
**Dissolved Vinyl Chloride in 1st Water**  
**(excluding MW-10, MW-11, MW-12, MW-18, MW-19 and MW-26 for smaller scale)**



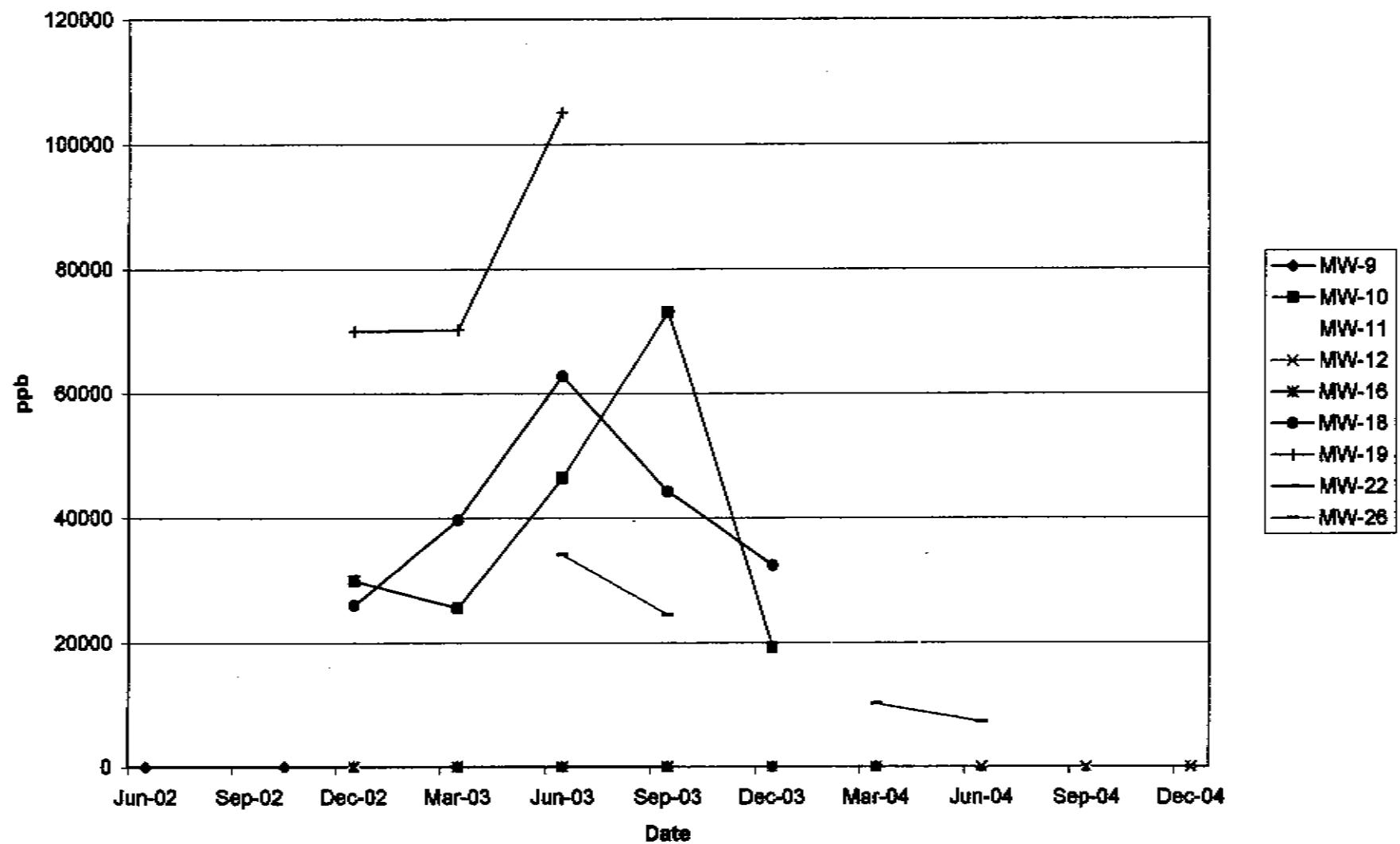
## Dissolved Vinyl Chloride in A1 Wells



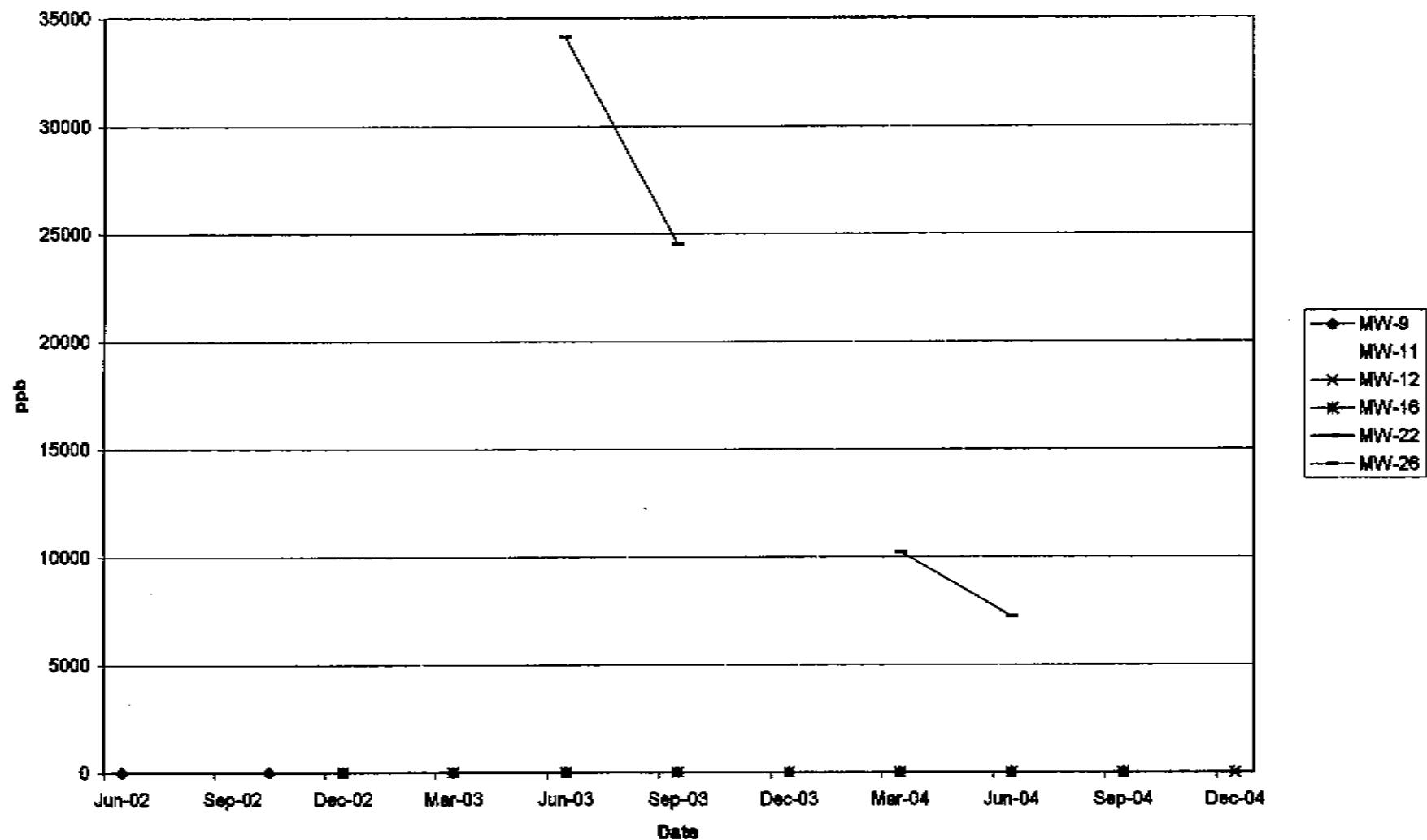
**Dissolved Vinyl Chloride in A1 Wells**  
**(excluding MW-15 and MW-21 for smaller scale)**



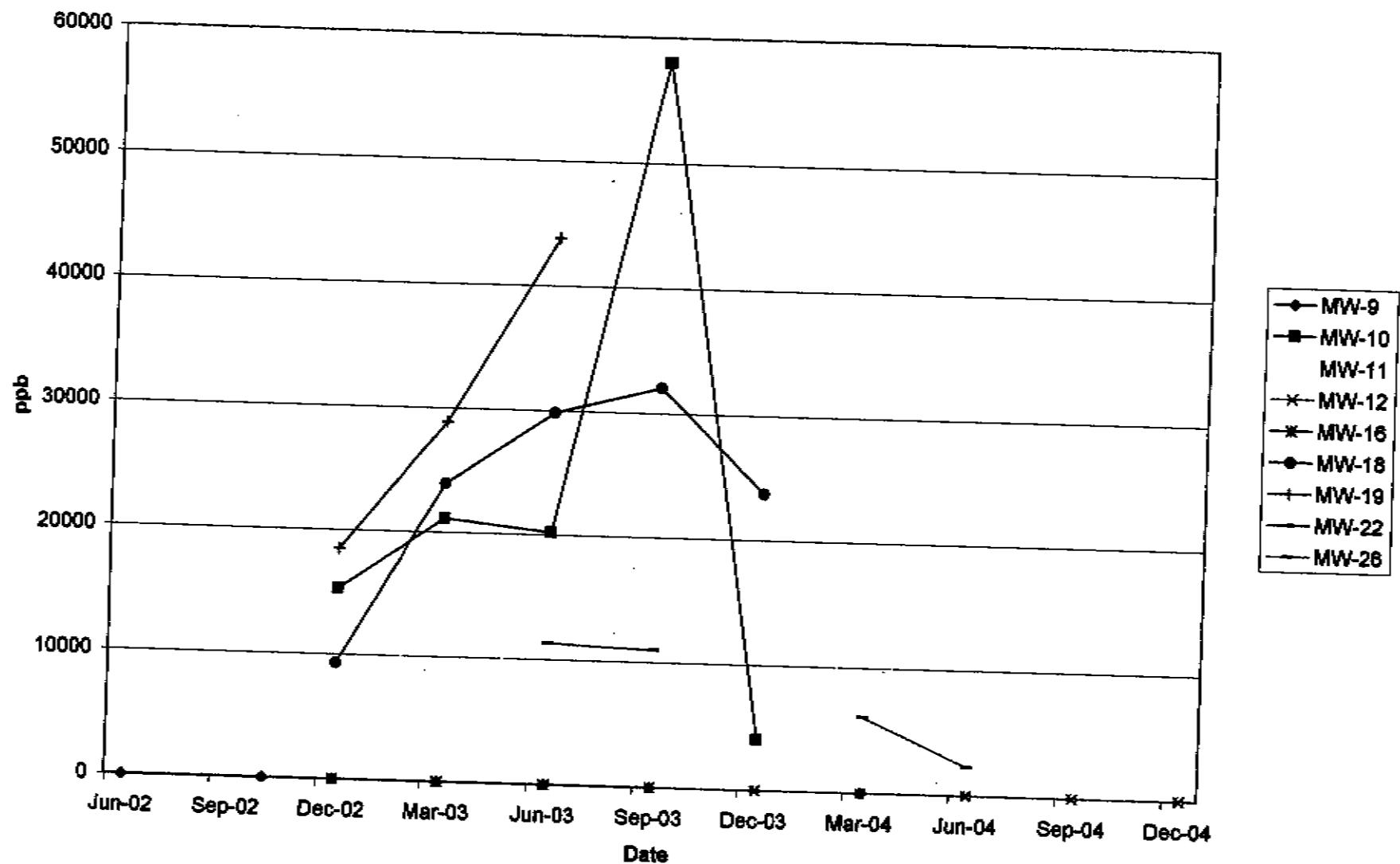
## Dissolved Acetone in 1st Water Wells



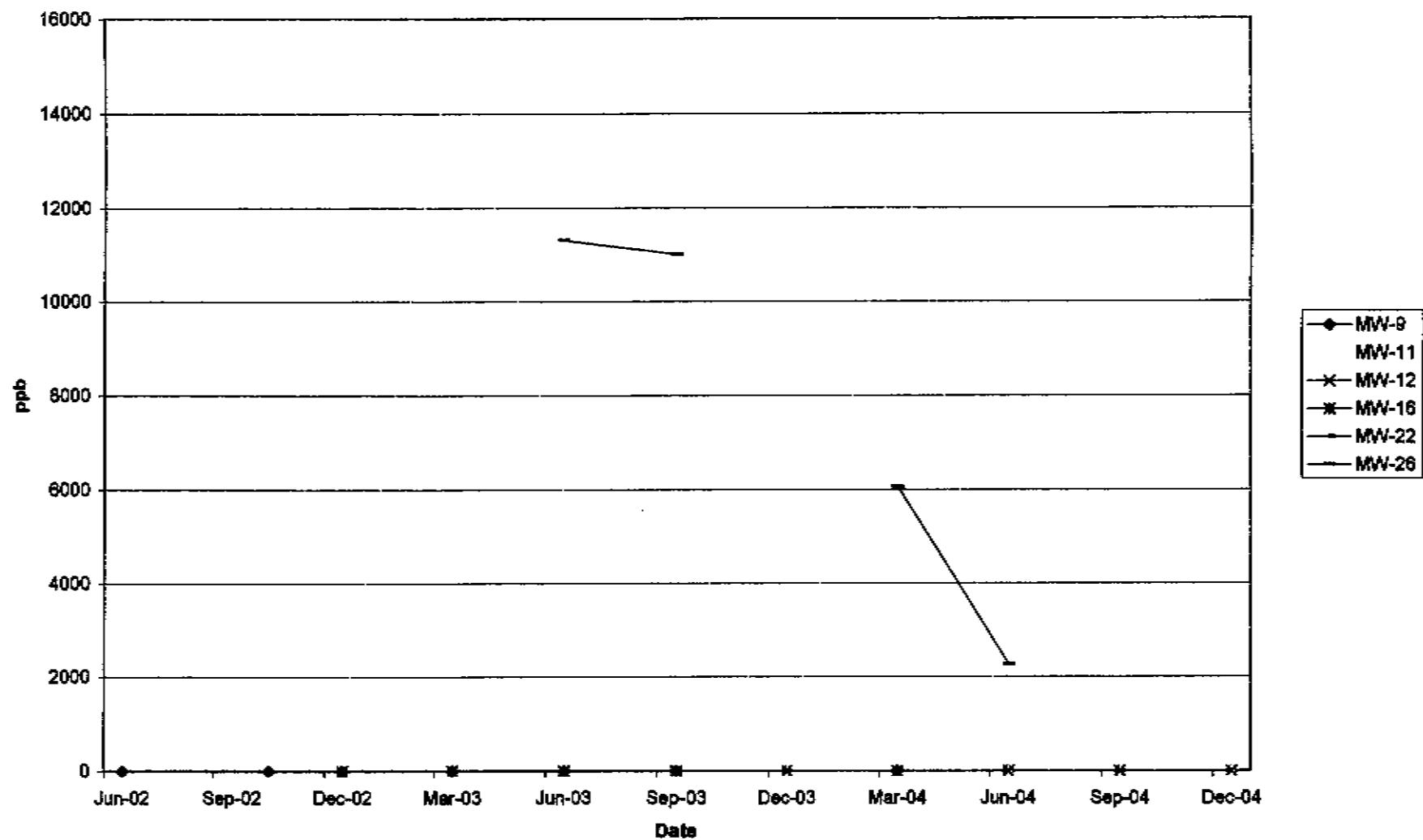
**Dissolved Acetone in 1st Water Wells**  
**(excluding MW-10, MW-18 and MW-19 for smaller scale)**



## Dissolved MEK In 1st Water Wells



**Dissolved MEK in 1st Water Wells**  
**(excluding MW-10, MW-18 and MW-19 for smaller scale)**



**APPENDIX  
C**

## SOUTHLAND TECHNICAL SERVICES, INC.

Page 1 of 1

## CHAIN OF CUSTODY RECORD

Lab Job Number

BL412114

Client:  
CSI

Address:

4359 Phelan Rd, Phelan, CA 92371

Report Attention: W. BROWN Phone: 760-617-6834 Fax: 760-868-8573 Sampled by: Blasine/wesab

Project Name/No.: FACE Project Site: Angeles; 8915 Sorenson Ave, SPS

Client Sample ID	Lab Sample ID	Sample Collect		Matrix Type	Sample Preserve	No., type* & size of container	Analyses Requested						T.A.T. Requested
		Date	Time				602/8021 (BTEX,MTBE)						
MW-13	BL412114-5	12-16-04	0855	Water	H2O	3V 2G 3P	8015M (Gasoline)	X					
EB-2	-7	12-16-04	0915			2V	8015M (Diesel)	X					
MW-14	-6	12-16-04	0940			3V 2G 3P	8260B (Oxygenates, BTEX)	X					
MW-2	-1	12-16-04	0945			2V	8260B (MTBE Confirm.)	X					
MW-12	-4	12-16-04	1025			3V 2G 3P	BTEX (1,4-dioxane 3ppb)	X	X				
MW-11	-3	12-16-04	1110			3V 2G 3P	DOC, TOC, TDS	X	X				
MW-9	-2	12-16-04	1125			3V 2G 3P	Chloride, Sulfate	X	X				
TB-2	-8	12-16-04	0730	↓	↓	2V	Sulfate, Nitrate, Alkalinity	X	X				
							Ferron/Stram, Total Iron						
							Cathionites, Bicarbonate						
							Manganese, Ethene						
Relinquished by: <i>Wendy Brown</i>	Company: CSI	Date: 12-16-04	Time: 1210	Received by: <i>SC</i>	Company: STS	Container types: M=Metal Tube A=Air Bag G=Glass bottle	P=Plastic bottle V=VOA vial						
Relinquished by:	Company:	Date:	Time:	Received by:	Company:								

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.  
 Distribution: WHITE with report, PINK to courier.



# **Southland Technical Services, Inc.**

Environmental Laboratories

12-30-2004

Ms. Windy Brown  
Clean Soils Inc.  
4359 Phelan Road  
Phelan, CA 92371

Project: Angeles Chemical Co.  
Project Site: 8915 Sorensen Ave., Santa Fe Springs, CA  
Sample Date: 12-16-2004  
Lab Job No.: BL412114

Dear Ms. Brown:

Enclosed please find the analytical report for the sample(s) received by STS Environmental Laboratories on 12-16-2004 and analyzed for the following parameters:

EPA 8015M (Gasoline)  
EPA 8260B (VOCs by GC/MS)  
EPA 160.1 (Total Dissolved Solids)  
EPA 352.1 (Nitrate)  
EPA 325.3 (Chloride)  
EPA 375.4 (Sulfate)  
EPA 376.1 (Sulfide)  
EPA 7380 (Total Iron) and Ferrous Iron  
Ethylene  
EPA 7460 (Manganese)  
EPA 310.1 (Alkalinity)  
Standard Method 4500 (Carbonate & Bicarbonate)  
EPA 415.1 (Total Organic Carbon, Dissolved Organic Carbon)  
Modified EPA 8270C (1,4-Dioxane by GC/MS)

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

Chloride, sulfide, Alkalinity, Carbonate & Bicarbonate analyses were subcontracted to Americhem Testing Laboratory. TOC & DOC analyses were subcontracted to Associated Laboratories. Their original reports are attached.

STS Environmental Laboratory is certified by CA DHS (Certificate Number 1986). Thank you for giving us the opportunity to serve you. Please feel free to call me at (323) 888-0728 if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph. D.  
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.



# **Southland Technical Services, Inc.**

Environmental Laboratories

12-30-2004

Client: Clean Soils Inc. Lab Job No.: BL412114  
Project: Angeles Chemical Co.  
Project Site: 8915 Sorensen Ave., Santa Fe Springs, CA Date Sampled: 12-16-2004  
Matrix: Water Date Received: 12-16-2004  
Batch No.: BML24-GW1 Date Analyzed: 12-24-2004

**EPA 8015M (Gasoline)**  
**Reporting Units: µg/L (ppb)**

Sample ID	Lab ID	C4-C12 (Gasoline Range)	Method Detection Limit	PQL
Method Blank		ND	50	50
MW-2	BL412114-1	256	50	50
MW-9	BL412114-2	1,530	50	50
MW-11	BL412114-3	95,500	50	50
MW-12	BL412114-4	2,290	50	50
MW-13	BL412114-5	205	50	50
MW-14	BL412114-6	225	50	50
EB-2	BL412114-7	ND	50	50
TB-2	BL412114-8	ND	50	50

PQL: Practical Quantitation Limit.



# **Southland Technical Services, Inc.**

**Environmental Laboratories**

12-30-2004

Client: Clean Soils Inc. Lab Job No.: BL412114  
Project: Angeles Chemical Co.  
Project Site: 8915 Sorensen Ave., Santa Fe Springs, CA Date Sampled: 12-16-2004  
Matrix: Water Date Received: 12-16-2004

## **Analytical Test Results**

Analyte	EPA Method	Date Analyzed	Reporting Unit	MW-9	MW-11	MW-12	MW-13	MW-14	Reporting Limit
Ethylene	GC/FID	12-16-04	ug/L	10.5	2,580	27	ND	ND	5
TDS	160.1	12-17-04	mg/L	1,510	809	479	946	959	2
Nitrate	352.1	12-16-04	mg/L	12.7	5.05	2.97	14.2	21.6	0.01
Sulfate	375.4	12-16-04	mg/L	454	ND	28.1	162	112	1.0
Total Iron	7380	12-17-04	mg/L	ND	1.65	0.36	0.45	0.40	0.1
Manganese	7460	12-17-04	mg/L	0.12	5.19	1.25	ND	0.09	0.05
Ferrous Iron	Colorimetry	12-16-04	mg/L	ND	ND	0.11	0.19	0.08	0.05

ND: Not Detected (at the specified limit).



# **Southland Technical Services, Inc.**

Environmental Laboratories

12-30-2004

Client: Clean Soils Inc. Lab Job No.: BL412114  
Project: Angeles Chemical Co.  
Project Site: 8915 Sorensen Ave., Santa Fe Springs, CA Date Sampled: 12-16-2004  
Matrix: Water Date Received: 12-16-2004  
Batch No.: 1220-BNA Date Analyzed: 12-20-2004

**Modified EPA 8270C (1,4-Dioxane by GC/MS)**

**Reporting Units: µg/L (ppb)**

Sample ID	Lab ID	1,4-Dioxane	Method Detection Limit	PQL
Method Blank		ND	2	3.0
MW-9	BL412114-2	468	2	3.0
MW-11	BL412114-3	ND	2	3.0
MW-12	BL412114-4	ND	2	3.0
MW-13	BL412114-5	ND	2	3.0
MW-14	BL412114-6	51	2	3.0

ND: Not Detected (at the specified limit)



# Southland Technical Services, Inc.

Environmental Laboratories

Client: Clean Soils Inc.  
Project: Angeles Chemical Co.

Lab Job No.: BL412114  
Matrix: Water

Date Reported: 12-30-2004  
Date Sampled: 12-16-2004

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: ppb

DATE ANALYZED	12-24	12-24-04	12-24-04	12-24-04	12-24-04	12-24-04	12-24-04
DILUTION FACTOR		1	5	100	1	1	2
LAB SAMPLE I.D.		BL412114-1	BL412114-2	BL412114-3	BL412114-4	BL412114-5	BL412114-6
CLIENT SAMPLE I.D.		MW-2	MW-9	MW-11	MW-12	MW-13	MW-14
COMPOUND	MDL	PQL	MB				
Dichlorodifluoromethane	2	5	ND	ND	ND	ND	ND
Chloromethane	2	5	ND	ND	ND	ND	ND
Vinyl Chloride	1	2	ND	ND	32.9	5,410	3.6
Bromomethane	2	5	ND	ND	ND	ND	ND
Chloroethane	2	5	ND	ND	ND	3,400	ND
Trichlorofluoromethane	2	5	ND	ND	ND	ND	ND
1,1-Dichloroethene	2	5	ND	183	731	360	1.8J
Iodomethane	2	5	ND	ND	ND	ND	ND
Methylene Chloride	2	5	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND
1,1-Dichloroethane	1	2	ND	82.5	496	85,300	156
2,2-Dichloropropane	2	5	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	2	5	ND	75.0	315	13,600	2.0J
Bromoform	2	5	ND	ND	ND	ND	ND
1,2-Dichloroethane	2	5	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	2	5	ND	ND	27.8	290 J	ND
Carbon tetrachloride	2	5	ND	ND	ND	ND	ND
1,1-Dichloropropene	2	5	ND	ND	ND	ND	ND
Benzene	1	1	ND	ND	17.0	1,040	ND
Trichloroethene	2	2	ND	25.0	21.4	ND	ND
1,2-Dichloropropane	2	5	ND	ND	ND	ND	ND
Bromodichloromethane	2	5	ND	ND	ND	ND	ND
Dibromomethane	2	5	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	2	5	ND	ND	ND	ND	ND
1,3-Dichloropropane	2	5	ND	ND	ND	ND	ND
Dibromochloromethane	2	5	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	2	5	ND	ND	ND	ND	ND
Bromoform	2	5	ND	ND	ND	ND	ND
Isopropylbenzene	2	5	ND	ND	ND	246	54.9
Bromobenzene	2	5	ND	ND	ND	ND	ND



# Southland Technical Services, Inc.

Environmental Laboratories

Client: Clean Soils Inc.  
Project: Angeles Chemical Co.

Lab Job No.: BL412114  
Matrix: Water

Date Reported: 12-30-2004  
Date Sampled: 12-16-2004

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: (ppb)

COMPOUND	MDL	PQL	MB	MW- 2	MW9	MW-11	MW-12	MW-13	MW-14
Toluene	1	1	ND	ND	ND	16,300	ND	ND	ND
Tetrachloroethene	2	2	ND	18.3	57.9	ND	ND	58.8	19.2
1,2-Dibromoethane(EDB)	2	5	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	1	ND	ND	ND	1,360	84.8	ND	ND
Total Xylenes	1	1	ND	ND	ND	4,310	2.5J	ND	ND
Styrene	2	5	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	2	5	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	2	5	ND	ND	ND	327 J	128	ND	ND
2-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	2	5	ND	ND	ND	1,440	290	ND	ND
tert-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	2	5	ND	ND	ND	2,910	473	ND	ND
Sec-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	2	5	ND	ND	ND	ND	3.1	ND	ND
1,4-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	2	5	ND	ND	ND	ND	11.0	ND	ND
1,2,4-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	2	5	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	2	5	ND	ND	ND	ND	ND	ND	ND
Naphthalene	2	5	ND	ND	ND	ND	66.9	ND	ND
1,2,3-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
Acetone	5	25	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	5	25	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	5	25	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	5	25	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	5	25	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	5	25	ND	ND	ND	ND	ND	ND	ND
MTBE	2	2	ND	ND	ND	ND	ND	ND	ND
ETBE	2	2	ND	ND	ND	ND	ND	ND	ND
DIPÉ	2	2	ND	ND	ND	ND	ND	ND	ND
TAME	2	2	ND	ND	ND	ND	ND	ND	ND
T-Butyl Alcohol	10	10	ND	ND	ND	ND	ND	ND	ND

MDL=Method Detection Limit; PQL=Practical Quantitation Limit; MB=Method Blank; ND=Not Detected (below DF × MDL); j=trace concentration.



# Southland Technical Services, Inc.

Environmental Laboratories

Client: Clean Soils Inc.  
Project: Angeles Chemical Co.

Lab Job No.: BL412114  
Matrix: Water

Date Reported: 12-30-2004  
Date Sampled: 12-16-2004

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: ppb

DATE ANALYZED	12-24	12-24-04	12-24-04				
DILUTION FACTOR	1						
LAB SAMPLE I.D.		BL412114-7	BL412114-8				
CLIENT SAMPLE I.D.		EB-2	TB-2				
COMPOUND	MDL	PQL	MB				
Dichlorodifluoromethane	2	5	ND	ND	ND		
Chloromethane	2	5	ND	ND	ND		
Vinyl Chloride	1	2	ND	ND	ND		
Bromomethane	2	5	ND	ND	ND		
Chloroethane	2	5	ND	ND	ND		
Trichlorofluoromethane	2	5	ND	ND	ND		
1,1-Dichloroethene	2	5	ND	ND	ND		
Iodomethane	2	5	ND	ND	ND		
Methylene Chloride	2	5	ND	ND	ND		
trans-1,2-Dichloroethene	2	5	ND	ND	ND		
1,1-Dichloroethane	1	2	ND	ND	ND		
2,2-Dichloropropane	2	5	ND	ND	ND		
cis-1,2-Dichloroethene	2	5	ND	ND	ND		
Bromochloromethane	2	5	ND	ND	ND		
Chloroform	2	5	ND	ND	ND		
1,2-Dichloroethane	2	5	ND	ND	ND		
1,1,1-Trichloroethane	2	5	ND	ND	ND		
Carbon tetrachloride	2	5	ND	ND	ND		
1,1-Dichloropropene	2	5	ND	ND	ND		
Benzene	1	1	ND	ND	ND		
Trichloroethene	2	2	ND	ND	ND		
1,2-Dichloropropane	2	5	ND	ND	ND		
Bromodichloromethane	2	5	ND	ND	ND		
Dibromomethane	2	5	ND	ND	ND		
trans-1,3-Dichloropropene	2	5	ND	ND	ND		
cis-1,3-Dichloropropene	2	5	ND	ND	ND		
1,1,2-Trichloroethane	2	5	ND	ND	ND		
1,3-Dichloropropane	2	5	ND	ND	ND		
Dibromochloromethane	2	5	ND	ND	ND		
2-Chloroethylvinyl ether	2	5	ND	ND	ND		
Bromoform	2	5	ND	ND	ND		
Isopropylbenzene	2	5	ND	ND	ND		
Bromobenzene	2	5	ND	ND	ND		



# Southland Technical Services, Inc.

Environmental Laboratories

Client: Clean Soils Inc.  
Project: Angeles Chemical Co.

Lab Job No.: BL412114  
Matrix: Water

Date Reported: 12-30-2004  
Date Sampled: 12-16-2004

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: (ppb)

COMPOUND	MDL	PQL	MB	EB-2	TB-2				
Toluene	1	1	ND	ND	ND				
Tetrachloroethene	2	2	ND	ND	ND				
1,2-Dibromoethane(EDB)	2	5	ND	ND	ND				
Chlorobenzene	2	5	ND	ND	ND				
1,1,1,2-Tetrachloroethane	2	5	ND	ND	ND				
Ethylbenzene	1	1	ND	ND	ND				
Total Xylenes	1	1	ND	ND	ND				
Styrene	2	5	ND	ND	ND				
1,1,2,2-Tetrachloroethane	2	5	ND	ND	ND				
1,2,3-Trichloropropane	2	5	ND	ND	ND				
n-Propylbenzene	2	5	ND	ND	ND				
2-Chlorotoluene	2	5	ND	ND	ND				
4-Chlorotoluene	2	5	ND	ND	ND				
1,3,5-Trimethylbenzene	2	5	ND	ND	ND				
tert-Butylbenzene	2	5	ND	ND	ND				
1,2,4-Trimethylbenzene	2	5	ND	ND	ND				
Sec-Butylbenzene	2	5	ND	ND	ND				
1,3-Dichlorobenzene	2	5	ND	ND	ND				
p-Isopropyltoluene	2	5	ND	ND	ND				
1,4-Dichlorobenzene	2	5	ND	ND	ND				
1,2-Dichlorobenzene	2	5	ND	ND	ND				
n-Butylbenzene	2	5	ND	ND	ND				
1,2,4-Trichlorobenzene	2	5	ND	ND	ND				
1,2-Dibromo-3-Chloropropane	2	5	ND	ND	ND				
Hexachlorobutadiene	2	5	ND	ND	ND				
Naphthalene	2	5	ND	ND	ND				
1,2,3-Trichlorobenzene	2	5	ND	ND	ND				
Acetone	5	25	ND	ND	ND				
2-Butanone (MEK)	5	25	ND	ND	ND				
Carbon disulfide	5	25	ND	ND	ND				
4-Methyl-2-pentanone	5	25	ND	ND	ND				
2-Hexanone	5	25	ND	ND	ND				
Vinyl Acetate	5	25	ND	ND	ND				
MTBE	2	2	ND	ND	ND				
ETBE	2	2	ND	ND	ND				
DIPE	2	2	ND	ND	ND				
TAME	2	2	ND	ND	ND				
T-Butyl Alcohol	10	10	ND	ND	ND				

MDL=Method Detection Limit; PQL=Practical Quantitation Limit; MB=Method Blank; ND=Not Detected (below DF × MDL). j=trace concentration.



# **Southland Technical Services, Inc.**

Environmental Laboratories

12-30-2004

## **EPA 8015M Batch QA/QC Report**

Client:	Clean Soils Inc.	Lab Job No.:	BL412114
Project:	Angeles Chemical Co.	Lab Sample ID:	G412133-3
Matrix:	Water	Date Analyzed:	12-24-2004
Batch No.:	BML24-GW1		

### **I. MS/MSD Report Unit: ppb**

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-g	ND	1000	956	889	95.6	88.9	7.3	30	70-130

### **II. LCS Result Unit: ppb**

Analyte	LCS Report Value	True Value	Rec.%	Accept. Limit
TPH-g	961	1,000	96.1	80-120

ND: Not Detected



# **Southland Technical Services, Inc.**

**Environmental Laboratories**

12-30-2004

## **Modified EPA 8270C (1,4-Dioxane by GC/MS) Batch QA/QC Report**

Client: Clean Soils Inc. Lab Job No.: BL412114  
Project: Angeles Chemical Co.  
Matrix: Water Lab Sample ID: ST41220-1  
Batch No.: 1220-BNA Date Analyzed: 12-20-2004

### **LCS/LCSD Result**

**Unit: ppb**

Analyte	Sample Conc.	Spike Conc.	LCS	LCSD	LCS %Rec.	LCSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1,4-Dioxane	ND	20.0	17.7	19.3	88.5	96.5	8.6	30	70-130

ND:Not Detected



# **Southland Technical Services, Inc.**

Environmental Laboratories

12-30-2004

## **EPA 8260B Batch QA/QC Report**

Client: Clean Soils Inc.  
Project: Angeles Chemical Co.  
Matrix: Water  
Batch No: 1224-VOBW

Lab Job No.: BL412114  
Lab Sample ID: G412133-3  
Date Analyzed: 12-24-2004

### **I. MS/MSD Report Unit: ppb**

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1,1-Dichloroethene	ND	20	16.2	16.9	81.0	84.5	4.2	30	70-130
Benzene	ND	20	20.0	21.7	100.0	108.5	8.2	30	70-130
Trichloro-ethene	ND	20	16.2	17.6	81.0	88.0	8.3	30	70-130
Toluene	ND	20	19.8	21.8	99.0	109.0	9.6	30	70-130
Chlorobenzene	ND	20	19.0	21.1	95.0	105.5	10.5	30	70-130

### **II. LCS Result Unit: ppb**

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	16.9	20.0	84.5	80-120
Benzene	21.5	20.0	107.5	80-120
Trichloro-ethene	18.3	20.0	91.5	80-120
Toluene	22.6	20.0	113.0	80-120
Chlorobenzene	22.2	20.0	111.0	80-120

ND: Not Detected.



# **Southland Technical Services, Inc.**

**Environmental Laboratories**

12-30-2004

## **Ethylene by GC/FID Batch QA/QC Report**

Client: Clean Soils Inc. Lab Job No.: BL412114  
Project: Angeles Chemical Co.  
Matrix: Water Lab Sample ID: BL412114-4  
Batch No.: FL16E Date Analyzed: 12-16-2004

### **I. Sample/Sample Dup Report**

Reporting Units:  $\mu\text{g/L}$

Analyte	MB	Sample Conc.	Sample Duplicate	% RPD	%RPD Accept. Limit
Ethylene	ND	27	32.5	18.5	30

### **II. LCS Result**

Reporting Units:  $\mu\text{g/L}$

Analyte	LCS Report Value	True Value	Rec.%	Accept. Limi
Ethylene	4,040	4,170	96.9	80-120

ND: Not Detected.



## ASSOCIATED LABORATORIES

806 N. Batavia • Orange, CA 92868  
 (714) 771-6900 • Fax: (714) 538-1209

CLIENT Smithland Tech. Services, Inc.  
 ADDRESS 7801 Telegraph Rd. #L  
Montebello, CA 90640  
 PROJECT NAME Angkor Chemicals

## CHAIN OF CUSTODY RECORD

Date 12-16-04 Page 1 of 1

PROJECT MANAGER		Lab Use Only:							
PHONE NUMBER		Samples Intact Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>							
SAMPLERS: (Signature)		County Seals Intact Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>							
PROJECT NUMBER		Sample Ambient <input type="checkbox"/> Cooled <input checked="" type="checkbox"/> Frozen <input type="checkbox"/>							
LOCATION DESCRIPTION		Same Day <input type="checkbox"/> 24 Hr. <input type="checkbox"/>							
SAMPLE NUMBER		Regular <input checked="" type="checkbox"/> 48 Hr. <input type="checkbox"/>							
DATE		TESTS REQUIRED							
TIME		WATER	AIR						
SAMPLE TYPE		SOLID	NO OF CNTNRS						
SUSP. CONTAM.									
BL4/21/11-9 MW-1511 2.5 2.5		12-15-04		✓			✓	2	TOC, DOC
-12 -17(0) DDC 0.8 TPC 1.2		"		✓				2	" "
-15 -20(0) 1.5 1.7		"		✓				2	
BL4/21/14-2 MW-9(0) 7.2 , 3.9		12-16-04		✓			✓	2	TOC DDC
-3 -11(0) 84 - 98		"		✓				2	" "
-4 -12(0) 3.2 3.5		"		✓				2	" "
-5 -13(0) DDC 1.1 TPC 1.4		"		✓				2	" "
-6 -14(0) 2.1 2.4		"		✓				2	" "
				DOC = Dissolved organic carbon.					
Relinquished by: (Signature)		Received by: (Signature)		Date/Time		I hereby authorize the performance of the above indicated work.			
Gloria L/AV STS		<u>Amelia Montoya</u>		12/16/04					
Relinquished by: (Signature)		Received by Laboratory for analysis: (Signature)		Date/Time					
		<u>12/17/04 8:40</u>							
Special Instructions:				DISTRIBUTION: White with report. Yellow to AL, Pink to Courier					

DISTRIBUTION: White with report. Yellow to AL,  
 Pink to Courier



**ASSOCIATED LABORATORIES**

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Southland Technical Services (6304)

LAB REQUEST 142144

ATTN: Roger Wang

7801 Telegraph Rd.- Suite L

REPORTED 12/28/2004

Montebello, CA 90640

RECEIVED 12/16/2004

PROJECT Angeles Chemicals

SUBMITTER Client

## COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

<u>Order No.</u>	<u>Client Sample Identification</u>
581994	BL412111-9
581995	BL412111-12
581996	BL412111-15
581997	BL412114-2
581998	BL412114-3
581999	BL412114-4
582000	BL412114-5
582001	BL412114-6
582002	Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.  
Vice President

*NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.*

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING  
Chemical  
Microbiological  
Environmental

Order #: 581994

Client Sample ID: BL412111-9

Matrix: WATER

Date Sampled: 12/15/2004

Analyte	Result	DLR	Units	Date/Analyst	
<b><u>60 Total Organic Carbon (TOC)</u></b>					
Dissolved Organic Carbon	2.4	0.5	mg/L	12/21/04	QP
Total Organic Carbon	2.8	0.5	mg/L	12/21/04	QP

Order #: 581995 Client Sample ID: BL412111-12

Matrix: WATER

Date Sampled: 12/15/2004

Analyte	Result	DLR	Units	Date/Analyst	
<b><u>60 Total Organic Carbon (TOC)</u></b>					
Dissolved Organic Carbon	0.9	0.5	mg/L	12/21/04	QP
Total Organic Carbon	1.6	0.5	mg/L	12/21/04	QP

Order #: 581996 Client Sample ID: BL412111-15

Matrix: WATER

Date Sampled: 12/15/2004

Analyte	Result	DLR	Units	Date/Analyst	
<b><u>60 Total Organic Carbon (TOC)</u></b>					
Dissolved Organic Carbon	1.6	0.5	mg/L	12/21/04	QP
Total Organic Carbon	2.0	0.5	mg/L	12/21/04	QP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



Order #: 581997

Client Sample ID: BL412114-2

Matrix: WATER

Date Sampled: 12/16/2004

Analyte

Result

DLR

Units

Date/Analyst

**060 Total Organic Carbon (TOC)**

Dissolved Organic Carbon	4.5	0.5	mg/L	12/21/04	QP
Total Organic Carbon	5.1	0.5	mg/L	12/21/04	QP

Order #: 581998

Client Sample ID: BL412114-3

Matrix: WATER

Date Sampled: 12/16/2004

Analyte

Result

DLR

Units

Date/Analyst

**60 Total Organic Carbon (TOC)**

Dissolved Organic Carbon	26	1.0	mg/L	12/21/04	QP
Total Organic Carbon	34	1.0	mg/L	12/21/04	QP

Order #: 581999

Client Sample ID: BL412114-4

Matrix: WATER

Date Sampled: 12/16/2004

Analyte

Result

DLR

Units

Date/Analyst

**50 Total Organic Carbon (TOC)**

Dissolved Organic Carbon	2.9	0.5	mg/L	12/21/04	QP
Total Organic Carbon	3.1	0.5	mg/L	12/21/04	QP

LR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



Order #: 582000

Client Sample ID: BL412114-5

Matrix: WATER

Date Sampled: 12/16/2004

Analyte	Result	DLR	Units	Date/Analyst
<b><u>060 Total Organic Carbon (TOC)</u></b>				
Dissolved Organic Carbon	1.5	0.5	mg/L	12/21/04 QP
Total Organic Carbon	1.6	0.5	mg/L	12/21/04 QP

Order #: 582001

Client Sample ID: BL412114-6

Matrix: WATER

Date Sampled: 12/16/2004

Analyte	Result	DLR	Units	Date/Analyst
<b><u>60 Total Organic Carbon (TOC)</u></b>				
Dissolved Organic Carbon	1.7	0.5	mg/L	12/21/04 QP
Total Organic Carbon	2.4	0.5	mg/L	12/21/04 QP

Order #: 582002

Client Sample ID: Laboratory Method Blank

Matrix: WATER

Analyte	Result	DLR	Units	Date/Analyst
<b><u>60 Total Organic Carbon (TOC)</u></b>				
Dissolved Organic Carbon	ND	0.5	mg/L	12/21/04 QP
Total Organic Carbon	ND	0.5	mg/L	12/21/04 QP

LR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



**ASSOCIATED LABORATORIES**  
**QA REPORT FORM**

QC Sample: 142144-2

Matrix: WATER

Prep. Date: December 21, 2004

Analysis Date: December 21, 2004

ID#'s in Batch: LR 142144

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
TOC	415.1 / 9060	1.7	10	11.2	11.8	95	101	5

*ND = "U" - Not Detected*

*RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate*

*%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate*

**%REC LIMITS = 80 - 120**

**RPD LIMITS = 20**

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

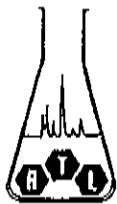
PREP BLK	LCS				
	Value	Result	True	%Rec	L.Limit
ND	9.7	10	97	80%	120%

*Value = Preparation Blank Value; ND = Not-Detected*

*LCS Result = Lab Control Sample Result*

*True = True Value of LCS*

*L.Limit / H.Limit = LCS Control Limits*



AmeriChem  
Testing  
Laboratory

1761 N. Batavia St.  
Orange, CA 92865

(714) 921-1550  
FAX: (714) 921-4770

# Analytical Report

REPORT NUMBER: AL-6377-3

REPORT ON:

CLIENT:

Water sample

STS Environmental Lab.  
7801 Telegraph Rd. suite J  
Montebello, CA 90640

DATE RECEIVED: 12/16/04

DATE REPORTED: 12/17/04

ANALYSIS : Chloride, DET. LIMIT: 0.1mg/l, METHOD: EPA 325.3

ANALYSIS : Sulfide, DET. LIMIT: 0.05mg/l, METHOD: EPA 376.1

ANALYSIS : Caronate, DET. LIMIT: 2.0mg/l, METHOD: Standard Method 4500

ANALYSIS : Bicarbonate, DET. LIMIT: 2.0mg/l, METHOD: Standard Method 4500

ANALYSIS : Alkalinity, DET. LIMIT: 1.0mg/l, METHOD: EPA 310.1

ANALYSIS	TEST RESULT, mg/l								
	BL412111, 12/15/04				BL412114, 12/16/04				
	-9	-12	15		-2	-3	-4	-5	-6
Chloride	113	98.0	112		152	158	54.5	103	98.0
Sulfide	ND	ND	ND		ND	0.16	ND	ND	ND
Carbonate	ND	ND	ND		ND	ND	ND	ND	ND
Bicarbonate	271	262	273		171	177	61	116	244
Total Alkalinity	445	430	443		370	695	455	443	401

Peter T. Wu  
Lab Director

## CHAIN OF CUSTODY RECORD

Lab Job Number BL 412111

Client: CSI							Analyses Requested				T.A.T. Requested		
Address: 1359 Phelan Rd, Phelan, CA 92371	Report Attention: W. Brown	Phone: 70-868-8574	Fax: 70-868-8573	Sampled by: wesdb						<input type="checkbox"/> Rush 8-12 hours			
Project Name/No.: FACC	Project Site: Angeles- 8915 Sorenson Ave, SFS											<input type="checkbox"/> 2-3 days	<input checked="" type="checkbox"/> Normal
Client Sample ID	Lab Sample ID	Sample Collect		Matrix Type	Sample Preserve	No.,type* & size of container	Analyses Requested				Sample Condition		
		Date	Time				602/8021 (BTEX,MTBE)	8015M (Gasoline)	8015M (Diesel)	8260B (VOCs)	8260B (Oxygenates, BTEX)	8260B (MTBE Confirm.)	<input checked="" type="checkbox"/> Chilled
MW-20	BL 412111-15	12-15-04	1230	water		3-V 2G 3-P		X	X	X	X	X	
MW-17	-12	12-15-04	1315			↓		X	X	X	X	X	
EB-1	-20		1420			2V	X						
MW-15	-9		1445			3V 2G 3-P	X						
MW-1	-1		1450			2V	X						
TB-1	-21	↓	0730			3V	X						
Relinquished by: Wendy S Brown	Company: CSI	Date: 12-15-04	Time: 1725	Received by: JLCS	Company: STS	Container types:				M=Metal Tube			
Relinquished by:	Company:	Date:	Time:	Received by:	Company:					A=Air Bag	P=Plastic bottle		
										G=Glass bottle	V=VOA vial		

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.  
 Distribution: WHITE with report, PINK to courier.

## CHAIN OF CUSTODY RECORD

Lab Job Number BL44211Client:  
STSAddress:  
13019 Plaza de Rio, Anaheim, CA 92807Report Attention:  
J. BrownProject Name/No.:  
STCPhone: (714) 808-8211 Fax: Sampled by: Tw-SaltProject Site: 41915 Stevens Avenue, Santa Fe Springs

## Analyses Requested

T.A.T. Requested

- Rush 8-12-24 hours  
 2-3 days  Normal

## Sample Condition

- Chilled  Intact  
 Sample seals

## Remarks

Client Sample ID	Lab Sample ID	Sample Collect		Matrix Type	Sample Preserve	No.,type* & size of container	602/8021 (BTEX,MTBE)	8015M (Gasoline)	8015M (Diesel)	8260B (VOCs)	8260B (Oxygenates, BTEX)	8260B (MTBE Confirm.)
		Date	Time									
MW-23 @ 43.5	BL44211-17	12-15-01	1315	Water	H2O	2-V		X				
MW-21 @ 69.5	-18	12-15-01	0948			2-V		X				
MW-25 @ 73.5	-19	12-15-01	1037			2-V		X				
MW-27 @ 59.5	-16		1038			3-V		X				
MW-17 @ 50.5	-13		1133			2-V		X				
MW-19 @ 63.5	-14		1140			1-V		X				
MW-15 @ 61.5	-11		1225			3-V		X				
MW-15 @ 58.5	-10		1236			3-V		X				
MW-14 @ 57.5	-8		1300			2-V		X				
MW-9 @ 42.5	-2		1410			3-V		X				
MW-13 @ 59.5	-7		1440			2-V		X				
MW-13 @ 54.5	-6		1442			2-V		X				
MW-12 @ 38.5	-4		1501			3-V		X				
MW-12 @ 42.5	-5		1500			2-V		X				
MW-11 @ 38.5	-3	✓	1247	✓	✓	2-V		X				

Relinquished by:  
Wendy S BrownCompany:  
STSDate: 12-15-01 Time: 1705Received by: STSCompany:  
STSContainer types:  
M=Metal Tube  
A=Air Bag  
G=Glass bottle  
P=Plastic bottle  
V=VOA vialSouthland Tech. Services, Inc.  
7801 Telegraph Road, Suite L & K  
Montebello, CA 90640Tel: (323) 888-0728  
Fax: (323) 888-1509Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.  
Distribution: WHITE with report, PINK to courier.



# Southland Technical Services, Inc.

Environmental Laboratories

12-30-2004

Ms. Windy Brown  
Clean Soils Inc.  
4359 Phelan Road  
Phelan, CA 92371

Project: Angeles Chemical Co.  
Project Site: 8915 Sorensen Ave., Santa Fe Springs, CA  
Sample Date: 12-15-2004  
Lab Job No.: BL412111

Dear Ms. Brown:

Enclosed please find the analytical report for the sample(s) received by STS Environmental Laboratories on 12-15-2004 and analyzed for the following parameters:

EPA 8015M (Gasoline)  
EPA 8260B (VOCs by GC/MS)  
EPA 160.1 (Total Dissolved Solids)  
EPA 352.1 (Nitrate)  
EPA 325.3 (Chloride)  
EPA 375.4 (Sulfate)  
EPA 376.1 (Sulfide)  
EPA 7380 (Total Iron) and Ferrous Iron  
Ethylene  
EPA 7460 (Manganese)  
EPA 310.1 (Alkalinity)  
Standard Method 4500 (Carbonate & Bicarbonate)  
EPA 415.1 (Total Organic Carbon, Dissolved Organic Carbon)  
Modified EPA 8270C (1,4-Dioxane by GC/MS)

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

Chloride, sulfide, Alkalinity, Carbonate & Bicarbonate analyses were subcontracted to Americhem Testing Laboratory. TOC & DOC analyses were subcontracted to Associated Laboratories. Their original reports are attached.

STS Environmental Laboratory is certified by CA DHS (Certificate Number 1986). Thank you for giving us the opportunity to serve you. Please feel free to call me at (323) 888-0728 if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph. D.  
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.



# Southland Technical Services, Inc.

Environmental Laboratories

12-30-2004

Client: Clean Soils Inc. Lab Job No.: BL412111  
Project: Angeles Chemical Co.  
Project Site: 8915 Sorensen Ave., Santa Fe Springs, CA Date Sampled: 12-15-2004  
Matrix: Water Date Received: 12-15-2004  
Batch No.: AML21-GW1/BML22-GW1 Date Analyzed: 12-21/22-2004

**EPA 8015M (Gasoline)**  
**Reporting Units: µg/L (ppb)**

Sample ID	Lab ID	C4-C12 (Gasoline Range)	Method Detection Limit	PQL
Method Blank		ND	50	50
MW-1	BL412111-1	378	50	50
MW-9@42.5	BL412111-2	1,310	50	50
MW-11@38.5	BL412111-3	6,320	50	50
MW-12@38.5	BL412111-4	2,800	50	50
MW-12@42.5	BL412111-5	1,990	50	50
MW-13@54.5	BL412111-6	139	50	50
MW-13@59.5	BL412111-7	148	50	50
MW-14@57.5	BL412111-8	279	50	50
MW-15	BL412111-9	319	50	50
MW-15@56.5	BL412111-10	1,560	50	50
MW-15@61.5	BL412111-11	403	50	50
MW-17	BL412111-12	129	50	50
MW-17@58.5	BL412111-13	125	50	50
MW-17@63.5	BL412111-14	151	50	50
MW-20	BL412111-15	139	50	50
MW-20@59.5	BL412111-16	307	50	50
MW-23@73.5	BL412111-17	140	50	50
MW-24@69.5	BL412111-18	213	50	50
MW-25@73.5	BL412111-19	198	50	50
EB-1	BL412111-20	ND	50	50
TB-1	BL412111-21	ND	50	50

PQL: Practical Quantitation Limit.



# **Southland Technical Services, Inc.**

Environmental Laboratories

12-30-2004

Client: Clean Soils Inc. Lab Job No.: BL412111  
Project: Angeles Chemical Co.  
Project Site: 8915 Sorensen Ave., Santa Fe Springs, CA Date Sampled: 12-15-2004  
Matrix: Water Date Received: 12-15-2004

## **Analytical Test Results**

Analyte	EPA Method	Date Analyzed	Reporting Unit	MW-15	MW-17	MW-20			Reporting Limit
Ethylene	GC/FID	12-16-04	ug/L	25.5	ND	ND			5
TDS	160.1	12-17-04	mg/L	1,650	1,850	1,790			2
Nitrate	352.1	12-16-04	mg/L	20.4	17.8	16.2			0.01
Sulfate	375.4	12-16-04	mg/L	140	120	195			1.0
Total Iron	7380	12-17-04	mg/L	0.25	0.17	0.13			0.1
Manganese	7460	12-17-04	mg/L	0.76	ND	ND			0.05
Ferrous Iron	Colorimetry	12-16-04	mg/L	0.23	0.07	ND			0.05

ND: Not Detected (at the specified limit).



# **Southland Technical Services, Inc.**

**Environmental Laboratories**

12-30-2004

Client:	Clean Soils Inc.	Lab Job No.:	BL412111
Project:	Angeles Chemical Co.		
Project Site:	8915 Sorensen Ave., Santa Fe Springs, CA	Date Sampled:	12-15-2004
Matrix:	Water	Date Received:	12-15-2004
Batch No.:	1220-BNA	Date Analyzed:	12-20-2004

**Modified EPA 8270C (1,4-Dioxane by GC/MS)**  
**Reporting Units: µg/L (ppb)**

Sample ID	Lab ID	1,4-Dioxane	Method Detection Limit	PQL
Method Blank		ND	2	3.0
MW-15	BL412111-9	42	2	3.0
MW-17	BL412111-12	ND	2	3.0
MW-20	BL412111-15	ND	2	3.0

ND: Not Detected (at the specified limit)

PQL: Practical Quantitation Limit.



# Southland Technical Services, Inc.

Environmental Laboratories

Client: Clean Soils Inc.  
Project: Angeles Chemical Co.

Lab Job No.: BL412111  
Matrix: Water

Date Reported: 12-30-2004  
Date Sampled: 12-15-2004

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: ppb

DATE ANALYZED	12-21	12-21-04	12-21-04	12-21-04	12-21-04	12-21-04	12-21-04	12-21-04
DILUTION FACTOR		1	5	200	2.5	1	1	1
LAB SAMPLE I.D.		BL412111-1	BL412111-2	BL412111-3	BL403124-4	BL412111-5	BL412111-6	
CLIENT SAMPLE I.D.		MW-1	MW-9@ 42.5	MW-11@ 38.5	MW-12@ 38.5	MW-12@ 42.5	MW-13@ 54.5	
COMPOUND	MDL	PQL	MB					
Dichlorodifluoromethane	2	5	ND	ND	ND	ND	ND	ND
Chloromethane	2	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	1	2	ND	28.7	6.7	4,610	8.8	5.5
Bromomethane	2	5	ND	ND	ND	ND	ND	ND
Chloroethane	2	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	2	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	2	5	ND	63.1	1,440	538	4.7J	3.1J
Iodomethane	2	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	2	5	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1	2	ND	80.4	880	62,400	469	398
2,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	2	5	ND	66.9	377	12,200	4.2J	4.6J
Bromochloromethane	2	5	ND	ND	ND	ND	ND	ND
Chloroform	2	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	2	5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	2	5	ND	2.0J	18.6 J	ND	ND	ND
Carbon tetrachloride	2	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
Benzene	1	1	ND	1.7	20.3	772	ND	ND
Trichloroethene	2	2	ND	40.0	29.9	ND	ND	20.4
1,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	2	5	ND	ND	ND	ND	ND	ND
Dibromomethane	2	5	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	2	5	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	2	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	2	5	ND	ND	ND	ND	ND	ND
Bromoform	2	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	2	5	ND	ND	ND	186J	92.1	72.8
Bromobenzene	2	5	ND	ND	ND	ND	ND	ND



# Southland Technical Services, Inc.

Environmental Laboratories

Client: Clean Soils Inc.  
Project: Angeles Chemical Co.

Lab Job No.: BL412111  
Matrix: Water

Date Reported: 12-30-2004  
Date Sampled: 12-15-2004

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: (ppb)

COMPOUND	MDL	PQL	MB	MW-1	MW-9@ 42.5	MW-11@ 38.5	MW-12@ 38.5	MW-12@ 42.5	MW-13@ 54.5
Toluene	1	1	ND	27.0	ND	9,860	3.8	ND	ND
Tetrachloroethene	2	2	ND	41.2	106	ND	ND	1.9J	85.6
1,2-Dibromoethane(EDB)	2	5	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	1	ND	ND	ND	1,060	139	105	ND
Total Xylenes	1	1	ND	2.7	ND	3,090	11.1	9.1	ND
Styrene	2	5	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	2	5	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	2	5	ND	ND	ND	224 J	195	152	ND
2-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	2	5	ND	ND	ND	550 J	142	99.7	ND
tert-Butylbenzene	2	5	ND	ND	ND	ND	79.9	ND	ND
1,2,4-Trimethylbenzene	2	5	ND	ND	ND	1,610	519	392	2.9J
Sec-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	2	5	ND	ND	ND	ND	4.9J	3.8J	ND
1,4-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	2	5	ND	ND	ND	ND	12.8	10.2	ND
1,2,4-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	2	5	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	2	5	ND	ND	ND	ND	ND	ND	ND
Naphthalene	2	5	ND	ND	ND	ND	101	92.3	5.3
1,2,3-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
Acetone	5	25	ND	ND	ND	1,290J	ND	ND	ND
2-Butanone (MEK)	5	25	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	5	25	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	5	25	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	5	25	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	5	25	ND	ND	ND	ND	ND	ND	ND
MTBE	2	2	ND	ND	ND	ND	ND	ND	ND
ETBE	2	2	ND	ND	ND	ND	ND	ND	ND
DIPE	2	2	ND	ND	ND	ND	ND	ND	ND
TAME	2	2	ND	ND	ND	ND	ND	ND	ND
T-Butyl Alcohol	10	10	ND	ND	ND	ND	ND	ND	ND

MDL=Method Detection Limit; PQL=Practical Quantitation Limit; MB=Method Blank; ND=Not Detected (below DF × MDL), j=trace concentration.

\* obtained from higher dilution.



**Southland Technical Services, Inc.**  
Environmental Laboratories

Client: Clean Soils Inc.  
Project: Angeles Chemical Co.

Lab Job No.: BL412111  
Matrix: Water

Date Reported: 12-30-2004  
Date Sampled: 12-15-2004

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: ppb

DATE ANALYZED	12-21	12-21-04	12-21-04	12-21-04	12-21-04	12-21-04	12-21-04
DILUTION FACTOR	1	1	2	1	2	1	1
LAB SAMPLE I.D.		BL412111-7	BL412111-8	BL412111-9	BL412111-10	BL412111-11	BL412111-12
CLIENT SAMPLE I.D.		MW-13@ 59.5	MW-14@ 57.5	MW-15	MW-15@ 56.5	MW-15@ 61.5	MW-17
COMPOUND	MDL	PQL	MB				
Dichlorodifluoromethane	2	5	ND	ND	ND	ND	ND
Chloromethane	2	5	ND	ND	ND	ND	ND
Vinyl Chloride	1	2	ND	ND	3.7J	34.7	852
Bromomethane	2	3	ND	ND	ND	ND	ND
Chloroethane	2	5	ND	ND	11.4	ND	12.6
Trichlorodifluoromethane	2	5	ND	ND	ND	ND	ND
1,1-Dichloroethene	2	5	ND	7.0	214	70.2	28.0
Iodomethane	2	5	ND	ND	ND	ND	ND
Methylene Chloride	2	5	ND	ND	7.6	ND	10.8
trans-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND
1,1-Dichloroethane	1	2	ND	ND	108	101	790
2,2-Dichloropropane	2	5	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	2	5	ND	11.5	71.3	72.2	161
Bromochloromethane	2	5	ND	ND	ND	ND	ND
Chloroform	2	5	ND	ND	ND	ND	ND
1,2-Dichloroethane	2	5	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	2	5	ND	ND	ND	ND	ND
Carbon tetrachloride	2	5	ND	ND	ND	ND	ND
1,1-Dichloropropene	2	5	ND	ND	ND	ND	ND
Benzene	1	1	ND	ND	ND	1.8 J	44.6
Trichloroethene	2	2	ND	21.8	26.3	47.0	2.8 J
1,2-Dichloropropane	2	5	ND	ND	ND	ND	ND
Bromodichloromethane	2	5	ND	ND	ND	ND	ND
Dibromomethane	2	5	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	2	5	ND	ND	ND	ND	ND
1,3-Dichloropropane	2	5	ND	ND	ND	ND	ND
Dibromochloromethane	2	5	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	2	5	ND	ND	ND	ND	ND
Bromoform	2	5	ND	ND	ND	ND	ND
Isopropylbenzene	2	5	ND	ND	ND	3.0 J	ND
Bromobenzene	2	5	ND	ND	ND	ND	ND



# Southland Technical Services, Inc.

Environmental Laboratories

Client: Clean Soils Inc.  
Project: Angeles Chemical Co.

Lab Job No.: BL412111  
Matrix: Water

Date Reported: 12-30-2004  
Date Sampled: 12-15-2004

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: (ppb)

COMPOUND	MDL	PQL	MB	MW-13@ 59.5	MW-14@ 57.5	MW-15	MW-15@ 56.5	MW-15@ 61.5	MW-17
Toluene	1	1	ND	ND	ND	33.5	878	93.2	ND
Tetrachloroethene	2	2	ND	94.3	24.2	38.2	2.8 J	34.0	81.1
1,2-Dibromoethane(EDB)	2	5	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	2	5	ND	ND	ND	ND	6.8	ND	ND
1,1,1,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	1	ND	ND	ND	ND	35.5	6.8	ND
Total Xylenes	1	1	ND	ND	ND	3.5	149	35.2	ND
Styrene	2	5	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	2	5	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	2	5	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	2	5	ND	ND	ND	ND	3.3 J	ND	ND
tert-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	2	5	ND	ND	ND	ND	13.0	3.7J	ND
Sec-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	2	5	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	2	5	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	2	5	ND	ND	ND	ND	ND	ND	ND
Naphthalene	2	5	ND	ND	ND	ND	3.0 J	ND	2.4 J
1,2,3-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
Acetone	5	25	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	5	25	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	5	25	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	5	25	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	5	25	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	5	25	ND	ND	ND	ND	ND	ND	ND
MTBE	2	2	ND	ND	ND	ND	ND	ND	ND
ETBE	2	2	ND	ND	ND	ND	ND	ND	ND
DIPE	2	2	ND	ND	ND	ND	ND	ND	ND
TAME	2	2	ND	ND	ND	ND	ND	ND	ND
t-Butyl Alcohol	10	10	ND	ND	ND	ND	ND	ND	ND

MDL=Method Detection Limit; PQL=Practical Quantitation Limit; MB=Method Blank; ND=Not Detected (below DF × MDL), j=trace concentration.



# Southland Technical Services, Inc.

Environmental Laboratories

Client: Clean Soils Inc.  
Project: Angeles Chemical Co.

Lab Job No.: BL412111  
Matrix: Water

Date Reported: 12-30-2004  
Date Sampled: 12-15-2004

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: ppb

DATE ANALYZED	12-22	12-22-04	12-22-04	12-22-04	12-22-04	12-22-04	12-22-04	12-22-04
DILUTION FACTOR		1	1	1	1	1	1	1
LAB SAMPLE I.D.		BL412111-13	BL412111-14	BL412111-15	BL403124-16	BL412111-17	BL412111-18	
CLIENT SAMPLE I.D.		MW-17@ 58.5	MW-17@ 63.5	MW-20	MW-20@ 59.5	MW-23@ 73.5	MW-24@ 69.5	
COMPOUND	MDL	PQL	MB					
Dichlorodifluoromethane	2	5	ND	ND	ND	ND	ND	ND
Chloromethane	2	5	ND	ND	ND	ND	ND	4.2 J
Vinyl Chloride	1	2	ND	ND	ND	ND	ND	ND
Bromomethane	2	5	ND	ND	ND	ND	ND	ND
Chloroethane	2	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	2	5	ND	2.4 J	ND	ND	ND	2.3 J
1,1-Dichloroethene	2	5	ND	3.2 J	ND	14.6	28.4	3.2 J
Iodomethane	2	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	2	5	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1	2	ND	ND	ND	1.9 J	3.4	ND
2,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	2	5	ND	ND	2.8J	5.5	11.3	4.5
Bromochloromethane	2	5	ND	ND	ND	ND	ND	ND
Chloroform	2	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	2	5	ND	2.7 J	5.5	ND	6.1	6.1
1,1,1-Trichloroethane	2	5	ND	ND	ND	ND	3.0 J	ND
Carbon tetrachloride	2	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
Benzene	1	1	ND	ND	ND	ND	ND	ND
Trichloroethene	2	2	ND	21.6	27.1	14.6	35.9	27.7
1,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	2	5	ND	ND	ND	ND	ND	ND
Dibromomethane	2	5	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	2	5	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	2	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	2	5	ND	ND	ND	ND	ND	ND
Bromoform	2	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	2	5	ND	ND	ND	ND	ND	ND
Bromobenzene	2	5	ND	ND	ND	ND	ND	ND



# Southland Technical Services, Inc.

Environmental Laboratories

Client: Clean Soils Inc.  
Project: Angeles Chemical Co.

Lab Job No.: BL412111  
Matrix: Water

Date Reported: 12-30-2004  
Date Sampled: 12-15-2004

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: (ppb)

COMPOUND	MDL	PQL	MB	MW-17@ 58.5	MW-17@ 63.5	MW-20	MW-20@ 59.5	MW-23@ 73.5	MW-24@ 69.5
Toluene	1	1	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	2	2	ND	10.8	43.0	27.1	229	52.1	75.1
1,2-Dibromoethane(EDB)	2	5	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	1	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1	1	ND	ND	ND	ND	ND	ND	ND
Styrene	2	5	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	2	5	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	2	5	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	2	5	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	2	5	ND	ND	ND	ND	ND	ND	ND
Sec-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	2	5	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	2	5	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	2	5	ND	ND	ND	ND	ND	ND	ND
Naphthalene	2	5	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
Acetone	5	25	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	5	25	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	5	25	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	5	25	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	5	25	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	5	25	ND	ND	ND	ND	ND	ND	ND
MTBE	2	2	ND	ND	ND	ND	ND	ND	ND
ETBE	2	2	ND	ND	ND	ND	ND	ND	ND
DIPPE	2	2	ND	ND	ND	ND	ND	ND	ND
TAME	2	2	ND	ND	ND	ND	ND	ND	ND
T-Butyl Alcohol	10	10	ND	ND	ND	ND	ND	ND	ND

MDL=Method Detection Limit; PQL=Practical Quantitation Limit; MB=Method Blank; ND=Not Detected (below DF × MDL), j=trace concentration,



# Southland Technical Services, Inc.

Environmental Laboratories

Client: Clean Soils Inc.  
Project: Angeles Chemical Co.

Lab Job No.: BL412111  
Matrix: Water

Date Reported: 12-30-2004  
Date Sampled: 12-15-2004

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: ppb

DATE ANALYZED	12-22	12-22-04	12-22-04	12-22-04			
DILUTION FACTOR		1	1	1			
LAB SAMPLE I.D.		BL412111-19	BL412111-20	BL412111-21			
CLIENT SAMPLE I.D.		MW-25@73.5	EB-1	TB-1			
COMPOUND	MDL	PQL	MB				
Dichlorodifluoromethane	2	5	ND	ND	ND		
Chloromethane	2	5	ND	ND	ND	ND	
Vinyl Chloride	1	2	ND	ND	ND	ND	
Bromomethane	2	5	ND	ND	ND	ND	
Chloroethane	2	5	ND	ND	ND	ND	
Trichlorofluoromethane	2	5	ND	11.2	ND	ND	
1,1-Dichloroethene	2	5	ND	9.0	ND	ND	
Iodomethane	2	5	ND	ND	ND	ND	
Methylene Chloride	2	5	ND	ND	ND	ND	
trans-1,2-Dichloroethene	2	5	ND	ND	ND	ND	
1,1-Dichloroethane	1	2	ND	ND	ND	ND	
2,2-Dichloropropane	2	5	ND	ND	ND	ND	
cis-1,2-Dichloroethene	2	5	ND	2.2 J	ND	ND	
Bromochloromethane	2	5	ND	ND	ND	ND	
Chloroform	2	5	ND	ND	ND	ND	
1,2-Dichloroethane	2	5	ND	2.4 J	ND	ND	
1,1,1-Trichloroethane	2	5	ND	ND	ND	ND	
Carbon tetrachloride	2	5	ND	ND	ND	ND	
1,1-Dichloropropene	2	5	ND	ND	ND	ND	
Benzene	1	1	ND	ND	ND	ND	
Trichloroethene	2	2	ND	65.2	ND	ND	
1,2-Dichloropropane	2	5	ND	ND	ND	ND	
Bromodichloromethane	2	5	ND	ND	ND	ND	
Dibromomethane	2	5	ND	ND	ND	ND	
trans-1,3-Dichloropropene	2	5	ND	ND	ND	ND	
cis-1,3-Dichloropropene	2	5	ND	ND	ND	ND	
1,1,2-Trichloroethane	2	5	ND	ND	ND	ND	
1,3-Dichloropropane	2	5	ND	ND	ND	ND	
Dibromochloromethane	2	5	ND	ND	ND	ND	
2-Chloroethylvinyl ether	2	5	ND	ND	ND	ND	
Bromoform	2	5	ND	ND	ND	ND	
Isopropylbenzene	2	5	ND	ND	ND	ND	
Bromobenzene	2	5	ND	ND	ND	ND	



# Southland Technical Services, Inc.

Environmental Laboratories

Client: Clean Soils Inc.  
Project: Angeles Chemical Co.

Lab Job No.: BL412111  
Matrix: Water

Date Reported: 12-30-2004  
Date Sampled: 12-15-2004

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: (ppb)

COMPOUND	MDL	PQL	MB	MW-25@ 73.5	EB-1	TB-1			
Toluene	1	1	ND	ND	ND	ND			
Tetrachloroethene	2	2	ND	86.1	ND	ND			
1,2-Dibromoethane(EDB)	2	5	ND	ND	ND	ND			
Chlorobenzene	2	5	ND	ND	ND	ND			
1,1,1,2-Tetrachloroethane	2	5	ND	ND	ND	ND			
Ethylbenzene	1	1	ND	ND	ND	ND			
Total Xylenes	1	1	ND	ND	ND	ND			
Styrene	2	5	ND	ND	ND	ND			
1,1,2,2-Tetrachloroethane	2	5	ND	ND	ND	ND			
1,2,3-Trichloropropane	2	5	ND	ND	ND	ND			
n-Propylbenzene	2	5	ND	ND	ND	ND			
2-Chlorotoluene	2	5	ND	ND	ND	ND			
4-Chlorotoluene	2	5	ND	ND	ND	ND			
1,3,5-Trimethylbenzene	2	5	ND	ND	ND	ND			
tert-Butylbenzene	2	5	ND	ND	ND	ND			
1,2,4-Trimethylbenzene	2	5	ND	ND	ND	ND			
Sec-Butylbenzene	2	5	ND	ND	ND	ND			
1,3-Dichlorobenzene	2	5	ND	ND	ND	ND			
p-Isopropyltoluene	2	5	ND	ND	ND	ND			
1,4-Dichlorobenzene	2	5	ND	ND	ND	ND			
1,2-Dichlorobenzene	2	5	ND	ND	ND	ND			
n-Butylbenzene	2	5	ND	ND	ND	ND			
1,2,4-Trichlorobenzene	2	5	ND	ND	ND	ND			
1,2-Dibromo-3-Chloropropane	2	5	ND	ND	ND	ND			
Hexachlorobutadiene	2	5	ND	ND	ND	ND			
Naphthalene	2	5	ND	ND	ND	ND			
1,2,3-Trichlorobenzene	2	5	ND	ND	ND	ND			
Acetone	5	25	ND	ND	ND	ND			
2-Butanone (MEK)	5	25	ND	ND	ND	ND			
Carbon disulfide	5	25	ND	ND	ND	ND			
4-Methyl-2-pentanone	5	25	ND	ND	ND	ND			
2-Hexanone	5	25	ND	ND	ND	ND			
Vinyl Acetate	5	25	ND	ND	ND	ND			
MTBE	2	2	ND	ND	ND	ND			
ETBE	2	2	ND	ND	ND	ND			
DiPE	2	2	ND	ND	ND	ND			
TAME	2	2	ND	ND	ND	ND			
T-Butyl Alcohol	10	10	ND	ND	ND	ND			

MDL=Method Detection Limit; PQL=Practical Quantitation Limit; MB=Method Blank; ND=Not Detected (below DF × MDL); j=trace concentration.



# Southland Technical Services, Inc.

Environmental Laboratories

12-30-2004

## EPA 8015M Batch QA/QC Report

Client: Clean Soils Inc. Lab Job No.: BL412111  
Project: Angeles Chemical Co.  
Matrix: Water Sampled ID: H412137-1  
Batch No.: AML21-GW1 Date Analyzed: 12-21-2004

### I. MS/MSD Report Unit: ppb

Compound	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-g	ND	1000	1,220	1,100	122.0	110.0	10.3	30	70-130

### II. LCS Result Unit: ppb

Compound	LCS Report Value	True Value	Rec.%	Accept. Limit
TPH-g	1,090	1000	109.0	80-120

ND: Not Detected (at the specified limit)



# Southland Technical Services, Inc.

Environmental Laboratories

12-30-2004

## EPA 8015M Batch QA/QC Report

Client:	Clean Soils Inc.	Lab Job No.:	BL412111
Project:	Angeles Chemical Co.	Lab Sample ID:	ST1222-1
Matrix:	Water	Date Analyzed:	12-22-2004
Batch No:	BML22-GW1		

### I. MS/MSD Report Unit: ppb

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-g	ND	1,000	822	810	82.2	81.0	1.5	30	70-130

### II. LCS Result Unit: ppb

Analyte	LCS Report Value	True Value	Rec.%	Accept. Limit
TPH-g	978	1,000	97.8	80-120

ND: Not Detected (at the specified limit)



# **Southland Technical Services, Inc.**

**Environmental Laboratories**

12-30-2004

## **Modified EPA 8270C (1,4-Dioxane by GC/MS)**

### **Batch QA/QC Report**

Client:	Clean Soils Inc.	Lab Job No.:	BL412111
Project:	Angeles Chemical Co.	Lab Sample ID:	ST41220-1
Matrix:	Water	Date Analyzed:	12-20-2004
Batch No.:	1220-BNA		

#### **LCS/LCSD Result**

Unit: ppb

Analyte	Sample Conc.	Spike Conc.	LCS	LCSD	LCS %Rec.	LCSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1,4-Dioxane	ND	20.0	17.7	19.3	88.5	96.5	8.6	30	70-130

ND:Not Detected



# Southland Technical Services, Inc.

Environmental Laboratories

12-30-2004

## EPA 8260B Batch QA/QC Report

Client: Clean Soils Inc. Lab Job No.: BL412111  
Project: Angeles Chemical Co.  
Matrix: Water Lab Sample ID: H412137-1  
Batch No: 1221-VOAW Date Analyzed: 12-21-2004

### I MS/MSD Report Unit: ppb

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1,1-Dichloroethene	ND	20	23.3	23.8	116.5	119.0	2.1	30	70-130
Benzene	ND	20	23.7	23.6	118.5	118.0	0.4	30	70-130
Trichloro-ethene	ND	20	17.5	17.0	87.5	85.0	2.9	30	70-130
Toluene	ND	20	22.0	23.2	110.0	116.0	5.3	30	70-130
Chlorobenzene	ND	20	19.3	20.9	96.5	104.5	8.0	30	70-130

### II LCS Result Unit: ppb

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	22.2	20	111.0	80-120
Benzene	22.7	20	113.5	80-120
Trichloro-ethene	16.4	20	82.0	80-120
Toluene	22.3	20	111.5	80-120
Chlorobenzene	18.0	20	90.0	80-120

ND: Not Detected.



# **Southland Technical Services, Inc.**

**Environmental Laboratories**

12-30-2004

## **EPA 8260B Batch QA/QC Report**

Client: Clean Soils Inc. Lab Job No.: BL412111  
Project: Angeles Chemical Co.  
Matrix: Water Lab Sample ID: ST1222-1  
Batch No: 1222-VOBW Date Analyzed: 12-22-2004

### **I. MS/MSD Report Unit: ppb**

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1,1-Dichloroethene	ND	20	19.8	20.0	99.0	100.0	1.0	30	70-130
Benzene	ND	20	18.1	17.7	90.5	88.5	2.2	30	70-130
Trichloro-ethene	ND	20	18.6	17.7	93.0	88.5	5.0	30	70-130
Toluene	ND	20	19.0	19.9	95.0	99.5	4.6	30	70-130
Chlorobenzene	ND	20	20.1	19.7	100.5	98.5	2.0	30	70-130

### **II. LCS Result Unit: ppb**

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	46.5	50.0	93.0	80-120
Benzene	44.0	50.0	88.0	80-120
Trichloro-ethene	49.0	50.0	98.0	80-120
Toluene	46.3	50.0	92.6	80-120
Chlorobenzene	53.1	50.0	106.2	80-120

ND: Not Detected.



# **Southland Technical Services, Inc.**

**Environmental Laboratories**

12-30-2004

## **Ethylene by GC/FID Batch QA/QC Report**

Client:	Clean Soils Inc.	Lab Job No.:	BL412111
Project:	Angeles Chemical Co.	Lab Sample ID:	BL412111-7
Matrix:	Water	Date Analyzed:	12-16-2004
Batch No.:	FL16E		

### **I. Sample/Sample Dup Report**

Reporting Units:  $\mu\text{g/L}$

Analyte	MB	Sample Conc.	Sample Duplicate	% RPD	%RPD Accept. Limit
Ethylene	ND	27	32.5	18.5	30

### **II. LCS Result**

Reporting Units:  $\mu\text{g/L}$

Analyte	LCS Report Value	True Value	Rec.%	Accept. Limi
Ethylene	4,040	4,170	96.9	80-120

ND: Not Detected.